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PART VIII

SUMMARY

PREFACE

PART VIII brings together the results of the statistical analysis presented in detail in preceding Parts. With the help of estimates, available elsewhere, of items of gross capital formation other than those covered above, and of measures of capital consumption, prepared by Solomon Fabricant of the National Bureau staff, we are now in a position to present three sets of estimates: (1) the total flow of commodities and of some directly related services; (2) gross capital formation, in four variants; (3) net capital formation. Furthermore, it is possible to compare these three series of totals with more comprehensive measures of the national product. The basic tables in this Part present these series of estimates in some detail, and provide percentage allocations of the most important totals, whenever percentages can be computed. The discussion in the Preface is confined to a brief description of the scope of the estimates and a summary of the main conclusions suggested by the statistical evidence.

1 FLOW OF COMMODITIES

a Characteristics of the estimates

The results of the comprehensive study of the annual flow of commodities are brought together in Table VIII-1. The estimates entered under the three broad categories of perishable, semidurable, and durable commodities comprise: (a) the flow of movable finished commodities to their ultimate domestic recipients, at the cost to them; (b) such of the flow of unfinished commodities in circulation as constitutes a net addition to inventories or a net draft from them; (c) the volume of new construction. All these categories in the flow of commodities are confined to the domestic area so far as: only domestic recipients are included under (a); under (b) the changes are measured only in inventories held within the country; and new construction is only that within the United States proper. Hence, in order to cover the total com-

modity output of the nation's economic system, including its exports and imports, we add in line V-2 the net balance of its commodity trade with other nations.¹ The resulting total in line VII represents the value of all commodities produced, excluding all duplication between raw materials, semifinished products, and finished commodities, except that involved in not allowing for the consumption of durable capital equipment. The addition to this commodity production total of such repairs and maintenance as were measured in our study yields the grand total of production of commodities and of immediately related services (line IX).

It would be impossible here to describe briefly and accurately the successive steps by which these estimates have been derived, the numerous assumptions made in order to bridge gaps in data, and the probable influence of these assumptions upon the estimates. These have been presented in detail in the preceding Parts. Here we indicate briefly the scope of the measures with especial emphasis on their limitations.

First, the terms 'ultimate recipients' and 'finished commodities' may be commented upon briefly. The ultimate recipients of consumers' goods are largely the households of the nation; and in addition the larger groups of consuming units such as hospitals, hotels, restaurants, and dormitories. But when inventories are considered, such of these large consuming groups as are business units are included, so far as they can be estimated with available data, in the measure of changes in business inventories (whereas no measure of changes in inventories held by family units is provided). The ultimate recipients of

¹ This item should also take into consideration that part of the balance of shipping and freight services that is imputable to the commodity movement. But it is impossible to make the necessary allocation, and the correction would be so small that it may be disregarded.

producers' goods are the business, public, and semi-public enterprises that actually use the commodities. Finished commodities are, then, commodities that have reached the form in which they are utilized by their ultimate recipients. Some question arose with reference to parts produced for replacement in already existing durable commodities. Such parts of producers' durable commodities were treated as finished; but the parts of consumers' durable were treated as unfinished.

The flow of movable commodities, either consumers' or producers', to ultimate recipients is reasonably complete, covering all manufactured commodities and those products of the extractive industries that flow to ultimate consumers without additional fabrication. They exclude relatively unimportant items such as flowers, and similar commodities that cannot be traced through the Census of Manufactures or measured at their origin on the nation's farms, and in its mines and waters. The flow of the movable commodities covered is measured at the cost to their ultimate recipients and thus includes not only the producers' price but also transportation and distributive costs. The volume of construction in line IV comprises only new construction and such substantial repairs and alterations as call for building permits. It could be estimated only at the cost charged by the construction firms, not at the price to the eventual holder. The change in inventories is perhaps the least inclusive item of all, owing largely to scarcity of comprehensive data. The estimates cover most business inventories, include farm stocks for only three important crops and such livestock as is classified as non-durable, and stocks of gold and silver; but fail to cover inventories of unincorporated business establishments in the service, finance, and public utility groups, inventories of non-business enterprises exempt from corporate income taxes, and stocks of non-durable commodities in the hands of ultimate consumers. Changes in inventories of unfinished commodities are classified, except for the last two years in the series (for which no allocation of any inventories by durability is as yet possible), under perishable, semidurable, and durable groups, according to the characteristics of the finished products that they eventually enter. This item is *not* the change from one year-end inventory to the next obtained as the difference between successive year-end inventories in fluctuating current valuation. On the contrary, it is so measured as to reflect actual accretion of commodities to or actual drafts of commodities from the commodity stocks

comprising the inventories, this effect being attained by converting the inventories at each year-end to the commodity equivalent in constant prices, obtaining the change by subtraction, and then expressing the net change for each year in prices current during that year. The balance of foreign trade in merchandise and in gold and silver movements is obtained directly from the *Balance of International Payments in the United States*, published annually (recently semi-annually) by the Department of Commerce, and is distinguished by the completeness characterizing all our foreign trade statistics. Finally, the estimates of repairs and servicing of durable commodities are incomplete; especially with reference to repairs and maintenance of movable commodities, the corresponding item being confined to services rendered by manufacturing and retail trade establishments only. The year-to-year changes in this item in line VIII, especially in the part representing repair and maintenance construction (shown separately in Table VIII-2), should not be given much weight. This part is derived as the difference between the global estimate of construction based on the consumption of all construction materials and the estimate of new construction based on substantially different data. Hence it is affected by differences between the assumptions made in arriving at the two construction measures, and the effect of these assumptions upon the faithfulness with which the two measures reflect fluctuations in the volume of the activities they purport to describe. On the other hand, whatever scant data are available on repairs and maintenance construction suggest that the average magnitude of this item in Table VIII-1 is tolerably reliable.

These comments refer to the estimates in both current and 1929 prices. But for the latter, the additional step involved in the adjustment for price changes results in additional qualifications caused largely by lack of data for some important commodity groups and by possible inadequacies in the available price measures. Especially for durable commodities, in which qualitative changes are important, is the task of adjustment for price changes difficult and the results subject to cautious use. In general, the estimates in 1929 prices are less accurate than those in current prices.

Some references in this brief description, and still more the detailed analysis in the preceding Parts, clearly indicate that the measures, valuable as they are for many uses, are not sufficiently accurate to be employed in a close analysis of short-term changes. They are of value primarily as in-

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dicating the average magnitudes involved; the general characteristics of the composition of many important totals; and the broad changes that may have occurred over the period in these totals and in their distribution among the constituent parts. But while some of the items have been measured with sufficient accuracy to allow their study as indexes of year-to-year changes (e.g., flow of commodities to ultimate recipients, in current prices; flow of perishable and semidurable commodities in 1929 prices; the foreign trade item), others are not sufficiently accurate for this purpose, or can be used for such a purpose only with substantial qualifications or after tests by juxtaposition against other data.

b The totals and their changes

The consideration of the average volume of commodity flow and of its allocation among constituent parts is facilitated by Table VIII-a; changes in this percentage allocation may be studied in Table VIII-1-A.

The average volume over the period of the total flow of finished commodities to their ultimate recipients is about 55 billion dollars, in both current and 1929 prices. Inventory changes and the balance of foreign trade in merchandise and in monetary metals add roughly 2 billion dollars to this total. The inclusion of repairs and maintenance would constitute a more significant addition, since it averages about 7 billion dollars, or about 12 per cent of the total production of new commodities. However, since an overwhelming proportion of these repairs and maintenance activities are probably consumed directly in turning out the new commodities, it is best to exclude this item. The total in line II-6 of Table VIII-a still contains duplication, in that no allowance is made for the consumption of fixed durable equipment. But, as stated repeatedly above, there are important reasons for allowing this duplication to stand, and for treating the commodity product of the nation as the sum of all finished commodities produced and

Table VIII-a
AVERAGE VOLUME AND PERCENTAGE ALLOCATION OF COMMODITY FLOW, 1919-1933
(average volume in millions of dollars)

	CURRENT PRICES		1929 PRICES	
	AVERAGE VOLUME	PERCENTAGE ALLOCATION	AVERAGE VOLUME	PERCENTAGE ALLOCATION
I Flow of finished commodities to ultimate recipients at the cost to them				
1 Perishable	24,089	43.8	25,238	45.6
2 Semidurable	10,487	19.1	9,723	17.6
3 Consumers' durable	7,198	13.1	7,234	13.1
4 Producers' durable	4,848	8.8	4,780	8.6
5 Construction	8,375	15.2	8,370	15.1
6 All durable (lines 3 + 4 + 5)	20,421	37.1	20,384	36.8
7 Total	54,996	100.0	55,345	100.0
II Production of new commodities at the cost to ultimate recipients and current holders				
1 Perishable	24,574	43.1	25,530	45.1
2 Semidurable	10,707	18.8	9,792	17.3
3 Movable durable	12,352	21.6	12,198	21.6
4 Construction	8,375	14.7	8,370	14.8
5 Unallocable	1,047	1.8	690	1.2
6 Total	57,055	100.0	56,580	100.0
7 Repairs and maintenance	6,876	12.1	6,864	12.1

of such unfinished commodities as have not yet become absorbed in the finished product.

Of this total production of new commodities, by far the largest group is the perishable, accounting on the average for 43 per cent. Of the other four groups the semidurable is the second largest, although it is less than half the size of the perishable group. Each of the three durable groups, producers', consumers', and construction, accounts for less than one-sixth of the total. But when these

three are combined into one durable group, the latter accounts for 36 per cent of the total and thus constitutes a substantial share of the total commodity output of the nation.

These averages convey the general impression that of the total commodity product a preponderant part is still accounted for by non-durable commodities. When it is further considered that the national product includes not only commodities but also services not embodied in new commodi-

ties (see comparison in Sec. 4, below), the share of non-durable goods in the total national product must be still larger and that of durable commodities still smaller than appears from Table VIII-a. Obviously, the strategic importance of durable commodities lies not so much in the share that they constitute of the national product as in their variation over time in a way significantly different from that of non-durable goods.

The absolute volumes in Table VIII-1 fluctuate appreciably, reflecting with fair sensitivity the recognized fluctuations in general business conditions. Thus the gross total of production of new commodities, in current prices (line VII) shows clearly the declines of 1921, 1924, 1927, and 1929-32; and even in the totals in 1929 prices the relatively mild recession of 1927 alone is not reflected. There are some significant differences in the sensitiveness with which the totals for the various commodity classes or the various items within those classes reflect these fluctuations. In general, the most conspicuous fluctuations occur in the durable group, the least conspicuous in the non-durable; the gross volumes, such as the flow to ultimate recipients and new construction, fluctuate less widely than the net items, such as changes in inventories; and the totals in current prices fluctuate more widely, of course, than those in 1929 prices.

These marked oscillations in the absolute volumes obscure manifestations of long time changes; and the differences in the susceptibility of the various constituent elements in the production totals result in short term fluctuations in the percentage allocations that bar inferences of long time changes in the latter. Thus a close study of the percentages in Table VIII-1-A reveals only the reflection of differences in the cyclical variability of the constituent parts. New construction is subject to a marked long swing, whose duration occupies fourteen of the seventeen years covered by the entire period—hence its percentage share shows this swing, the share rising to a peak in 1925 and declining to a trough in 1933; consequently, the shares of the other elements reflect inversely this swing in the share of construction. The year-to-year fluctuations in the share of each movable commodity group reveal clearly the differing sensitivity to cycles in general business conditions. Thus in the distribution in current prices, the share of producers' durable and of consumers' durable commodities declines in each year of general business contraction (1921, 1924, 1927, 1930-32), whereas the share of perishable and of semidurable

rises, indicating that the output in the former two groups responds more decisively to fluctuations in general business conditions. Similar differences between the movable durable and non-durable commodities are observed in the distribution in 1929 prices. All these differences in susceptibility to cyclical changes in general business conditions are in consonance with the existing knowledge of the differing impact of these fluctuations upon the various parts of the productive system.

2 GROSS CAPITAL FORMATION

a Characteristics of the estimates

The variants of total gross capital formation include chiefly commodity flows, all of which have already been considered in Table VIII-1, and in the preceding discussion. The only item in Table VIII-2 that does not appear in Table VIII-1 is the net change in claims against foreign countries, a total more comprehensive than the net balance of foreign trade in merchandise and monetary metals considered heretofore. The source of this item is the same series of reports on the *Balance of International Payments* from which the balance in merchandise and metal trade was derived.

The inclusion, in gross capital formation, of this net change in claims against foreign countries introduces, however, an element that is significantly different from the others. The other elements in gross capital formation are either commodity totals or changes in them, or activities such as repairs and alterations that leave tangible evidence of the change they caused in the commodities. In accordance with the basic viewpoint of this study capital formation is conceived as a process of commodity flow, the latter given its proper economic weight by being evaluated at market prices. No attempt has been made to treat capital formation as a change in the claims to incomes. But net changes in claims against foreign countries do relate to claims, to a type of capital formation that does not find tangible expression in commodity stocks. The resulting heterogeneity of the total reflects the limitation of our concept of capital formation when applied to a national economy set amidst others. Were we to apply this concept to the world as a unit, we could confine it to commodity flows and stocks. But for a single nation the commodity concept cannot be adhered to completely: The total, accordingly, consists of two parts: one, accounting for the overwhelming share, represents actual additions to or drafts from the commodity stocks of the nation; the other rep-

resents the much less tangible change in claims against other nations.

Some classification by type of user has been carried through for the commodity flows whose totals are summarized in Table VIII-1. But for gross capital formation this classification has been pushed further, and it is of somewhat greater importance in that it affects the magnitudes of some of the four variants. Two comments may be made with reference to the allocation by type of user, as shown in both Table VIII-2 and the other tables in this Part. First, our allocation of movable durable commodities between consumers' and producers' is crude, being based upon the characteristics of preponderant use, and the crudities influence both the volume of capital formation in the different variants and its distribution by type of user. No attempt has been made to segregate the shares of either consumers' or producers' durable commodities that flow to governmental agencies; or the shares of consumers' goods, such as passenger cars, that may be used by business enterprises; or the shares of producers' goods, such as typewriters or airplanes, that may be used by ultimate consumers. The result is to underestimate the volume of commodities destined for use by governmental agencies, to underestimate somewhat the volume of producers' goods, to underestimate gross capital formation in the variants that exclude consumers' movable durable commodities and to overestimate somewhat the volume of the latter. It is impossible to set even a tolerably approximate figure on these respective shortages and excesses. In percentages of such magnitudes as the total flow of consumers' or producers' durable commodities (including construction), they can hardly be significantly large. But this qualification is to be kept in mind in interpreting the totals in Table VIII-2.

Second, changes in stocks of monetary metals (whether in bullion or the bullion contents of coinage) were classified under capital formation destined for use by public agencies. Since before 1933 part of that stock was held by private institutions, viz., banks, there may be some question concerning this classification. But it appeared to us that monetary metals, in bullion and coinage (excluding any business inventories held for industrial use) are largely in the nature of public capital, and should be classified in the same division as public roads, streets and governmental buildings.

b *The totals and their changes*

The average value of the most inclusive total of

gross capital formation (corresponding to Variant Two, defined in the Introduction) amounted for the period 1919-33 to 29 billion dollars in current prices and 28.4 billion in 1929 prices (Table VIII-b). The omission of consumers' movable durable commodities yields a total corresponding to Variant Three, with an average value over the period of 21.1 billion dollars in current prices and of 20.5 billion in 1929 prices. If all consumers' durable are retained, but all repairs and alterations are excluded as largely non-durable in character, the average of gross capital formation for the same years is 22.1 billion dollars in current prices and 21.5 billion in 1929 prices. Finally, when both consumers' movable durable commodities and all repair items are omitted (a concept designated as Variant Four in the Introduction), the average value in current prices is reduced to 14.9 billion dollars per year and that in 1929 prices to 14.3 billion.

The allocation of total gross capital formation either among various groups by type of user or among narrower divisions within these groups depends obviously upon the total used. In the most inclusive total (Variant Two) the two major groups by type of user, consumers and business, are of approximately the same importance, each accounting for slightly over one-third. The public agencies item accounts for about 8 per cent, and the unallocable for almost one-fifth. The most important single item is consumers' movable durable commodities, accounting for about one-quarter. The omission of this item and of repairs and alterations (Variant Three) naturally reduces the relative share of the consumers' group and leaves that destined for business use as the most important, with the flow of producers' movable durable commodities as the largest single item. The exclusion of all repairs and alterations and the retention of all consumers' durable commodities reduce the volume destined for business use more materially than that destined for consumers; and of course, results in a marked decline in the share of the unallocable item. As a result, the average percentage of this total accounted for by items destined for use by consumers is 46; for use by business, 40; by public agencies, 11; and of the unallocable change in claims against foreign countries, 3. If we exclude both consumers' movable durable commodities and repairs and alterations (Variant Four), the allocation changes again, the group destined for use by consumers accounting on the average for only 20 per cent; that destined for use by business for 60 per cent; that destined for use by

PART VIII

Table VIII-b

AVERAGE VOLUME AND PERCENTAGE ALLOCATION OF GROSS CAPITAL FORMATION,
1919-1933

(average volume in millions of dollars)

	CURRENT PRICES		1929 PRICES	
	AVERAGE VOLUME	PERCENTAGE ALLOCATION	AVERAGE VOLUME	PERCENTAGE ALLOCATION
I Most inclusive total	28,992	100.0	28,359	100.0
1 Consumers	10,772	37.2	10,834	38.2
a Consumers' durable commodities	7,198	24.8	7,234	25.5
b Repairs and servicing of consumers' durable commodities	656	2.3	670	2.4
c Residential construction	2,918	10.1	2,930	10.3
2 Business	10,460	36.1	9,915	35.0
a Producers' durable commodities	4,848	16.7	4,780	16.9
b Repairs and servicing of producers' durable commodities	1,503	5.2	1,494	5.3
c Business construction	3,174	10.9	3,180	11.2
d Changes in business inventories	935	3.2	461	1.6
3 Public agencies	2,365	8.2	2,345	8.3
a Public construction	2,282	7.9	2,260	8.0
b Changes in stocks of silver and gold	83	0.3	84	0.3
4 Unallocable	5,395	18.6	5,264	18.6
a Changes in claims against foreign countries	677	2.3	565	2.0
b Construction repairs and maintenance	4,717	16.3	4,699	16.6
II Excluding all repairs and maintenance	22,116	100.0	21,495	100.0
1 Consumers	10,116	45.7	10,164	47.3
a Consumers' durable commodities	7,198	32.5	7,234	33.7
c Residential construction	2,918	13.2	2,930	13.6
2 Business	8,958	40.5	8,421	39.2
a Producers' durable commodities	4,848	21.9	4,780	22.2
c Business construction	3,174	14.4	3,180	14.8
d Changes in business inventories	935	4.2	461	2.1
3 Public agencies	2,365	10.7	2,345	10.9
a Public construction	2,282	10.3	2,260	10.5
b Changes in stocks of silver and gold	83	0.4	84	0.4
4 Unallocable	677	3.1	565	2.6
a Changes in claims against foreign countries	677	3.1	565	2.6
III Excluding all repairs and maintenance and consumers' movable durable commodities	14,918	100.0	14,261	100.0
1 Consumers	2,918	19.6	2,930	20.5
c Residential construction	2,918	19.6	2,930	20.5
2 Business	8,958	60.0	8,421	59.0
a Producers' durable commodities	4,848	32.5	4,780	33.5
c Business construction	3,174	21.3	3,180	22.3
d Changes in business inventories	935	6.3	461	3.2
3 Public agencies	2,365	15.9	2,345	16.4
a Public construction	2,282	15.3	2,260	15.8
b Changes in stocks of silver and gold	83	0.6	84	0.6
4 Unallocable	677	4.5	565	4.0
a Changes in claims against foreign countries	677	4.5	565	4.0

public agencies for 16 per cent. These percentages are based on the averages in current prices; those based on the averages in 1929 prices are only slightly different. Finally, both the averages in Table VIII-b and the annual figures in Table VIII-2 make it possible for any student to modify the concept of capital formation still further and to obtain the corresponding totals.

The absolute volume of capital formation changed markedly during the period, in all four variants, reflecting the well-known fluctuations in business conditions. We need not consider them

here in detail, except to note that they were not of the same magnitude in the various parts of gross capital formation. As a result, there were marked changes in the allocation of gross capital formation among its constituent elements (Table VIII-2-A).

Some of the changes in the percentage allocation of gross capital formation among its constituent elements are due to the differences in the amplitude and duration of cyclical oscillations characterizing them. Thus a marked long swing in construction and the absence of such a swing

in the other parts of gross capital formation produce a similar swing in the percentage share of construction. Likewise, since items such as changes in business inventories and the flow of producers' durable are especially sensitive to cycles in general business conditions, their percentages in the totals fluctuate with cyclical expansions and contractions. But besides these cyclical changes in the percentage allocation, the marked shifts over the period as a whole are of especial interest in the study of capital formation.

First, the share of consumers' durable commodities (movable) increased over the period (Table VIII-2-A, lines I-1-a, II-1-a). In percentages of the most inclusive total in current prices, it averaged about 20 in 1919-21, 26 in 1927-29, and 32 in 1931-33; in percentages of the total that excludes repairs and maintenance, the corresponding averages were 27, 33, and 48. The totals in 1929 prices indicate a similarly significant increase in the share of the flow of consumers' movable durable commodities. The relative share of repairs and servicing of consumers' durable commodities has also increased markedly (line I-1-b).

Second, the share of net changes in business inventories declined appreciably over the period (lines I-2-d, II-2-d, III-2-d). Its marked short term fluctuations conceal this tendency, but a comparison of averages of the percentages for the successive three- or five-year periods reveals clearly this downward movement. Thus in percentages of the most inclusive total in current prices, its average share in 1919-21 was 10, in 1922-24, 2.7, in 1925-27, 3.6, in 1928-30, 0.5; and turned negative in 1931-33. A similar decline can be observed for the percentages based on 1929 prices; and for percentages of any other total of gross capital formation.

Third, the share of public construction in the total rose appreciably over the period (lines I-3-a, II-3-a, III-3-a). This tendency has been greatly intensified during the recent depression, but the entries in Table VIII-2-A indicate a significant rise even before 1929. Thus, in percentages of the most inclusive total in current prices, the share of public construction averaged about 5 in 1919-21, and about 8 in 1927-29. Similar significant increases can be observed in the percentages of other totals of gross capital formation; and in the percentages based on 1929 prices.

Fourth, the share of net changes in claims against foreign countries seems to have declined over the period (lines I-4-a, II-4-a, III-4-a). This trend is, however, less consistent than the

ones observed above, since it is caused largely by the very high levels of this item in 1919-20, and the very low ones in 1934 and 1935. For the rest of the period the relative share of these net changes in claims against foreign countries fluctuates widely, but without any consistent movement in one direction.

No significant changes over the period can be discerned in the relative shares of the other elements of gross capital formation. Some of these elements account for a fairly constant share, but one subject to short term oscillations (e.g., the flow of producers' durable commodities). Others are subject to such a long cyclical swing that in the brief period even approximate trends cannot be established (e.g., the construction items). Still others fluctuate so widely that again no tendency in their relative shares over the period can be established (e.g., net changes in stocks of gold and silver).

3 NET CAPITAL FORMATION

a Characteristics of the estimates

The volume of net capital formation is measured by subtracting from gross capital formation the estimated consumption of all durable capital goods utilized in the process of production. Such estimates have been prepared by Solomon Fabricant covering capital consumption: (a) that took place within the business enterprises of the nation (exclusive of that chargeable to residential buildings); (b) that was chargeable to the use of residential buildings; (c) that was chargeable to the use of durable goods by governmental agencies. Mr. Fabricant presented his preliminary results in *Bulletin 60*, Measures of Capital Consumption, 1919-1933, and we have taken advantage of the results of his subsequent work. Lack of data on the consumption of consumers' durable products other than residential buildings and passenger cars made it impossible to measure net capital formation in any variant except Four (see Table VIII-3).

For the most important item in Table VIII-3, capital formation destined for business use, there is some lack of correspondence between the gross capital formation totals and the totals of depreciation, depletion, and fire loss deductions which are presented as measures of capital consumption. This lack of correspondence arises largely from two factors: (1) our distinction between producers' and consumers' goods is based on the preponderant use of the commodities, whereas the measures of depreciation, depletion, etc., charged by business enterprises are based on the actual segregation of capital goods used by them; (2) de-

preciation may be deducted for items not appearing in gross capital formation. Thus, the estimates in Table VIII-3 of net capital formation destined for business use may be too large because: (a) gross capital formation totals include some durable goods that are destined for use either by ultimate consumers or by non-business agencies (e.g., government); (b) these totals include commodities (e.g., tools), which, their unit cost being small, may be treated by business enterprises on an inventory basis in 'deferred charges', rather than made subject to depreciation charges; (c) depreciation may be applied to capital values that have been reduced from their original cost. On the other hand, the net capital formation totals in Table VIII-3 may be too small because: (a) the gross capital formation total used fails to include some portion of commodities, classified by us as consumers' durable, that may be utilized by business enterprises (e.g., rugs); (b) depreciation charges may be applied to capital values that have become appreciated as compared with their original cost; or to intangibles; or to material repairs and alterations not included under gross capital formation in Table VIII-3; or to commodities classified by us as consumers' durable but actually used by business enterprises. Similarly, the estimates of capital consumption for residential buildings, and especially for the durable commodities used by governmental agencies, are rough approximations.

Moreover, the estimates of capital consumption represented by depreciation charges are based on the assumption of repairs and maintenance sufficient to keep the capital item in a condition that will assure the period of useful life that is the basis for the calculation of depreciation. But actually business enterprises or other agencies utilizing the capital goods may spend more on repairs and maintenance than is assumed in the depreciation charges, thus adding to the value of existing capital; or, which is much more probable, may, in bad years, spend much less on repairs and maintenance than is needed to assure to the equipment the period of life that underlies the estimate of depreciation charges, and thus incur capital consumption to an extent appreciably larger than that represented by the depreciation charge. Were data available for all users of capital goods on the theoretical amount of repairs and maintenance assumed in the depreciation charges and on the actual amount of repairs and maintenance carried through, the correct measure of net capital formation would be yielded by subtracting from gross

capital formation, inclusive of actual repairs and maintenance, the capital consumption estimate, inclusive of the theoretical amount of needed repairs and maintenance. But the lack of such data forces the approximation to net capital formation that is obtained by disregarding both theoretical and actual repairs and maintenance. Obviously the measures in Table VIII-3 are not of a high order of precision and should be used as approximations rather than as exact measures of net changes in the stock of capital goods held by the groups of users. Nevertheless, the broad indications of the estimates are fairly trustworthy. We first compare them with gross capital formation and capital consumption, then discuss the absolute magnitude of net capital formation, and its distribution among the various components.

b Comparison with gross capital formation and capital consumption

Comparison of gross capital formation, capital consumption and net capital formation shows what a large part of the total diverted into investment is offset by the current consumption of already existing durable commodities (Table VIII-c). Of the average volume of gross capital formation for the entire period 62 per cent in current prices and 68 per cent in 1929 prices is accounted for by capital consumption, and only 38 and 32 per cent, respectively, can be considered as a net addition to the stock of capital goods.

This average percentage distribution of gross capital formation between presumptive replacement of capital consumed and net addition to stock varies little as between estimates in current and in 1929 prices; but it does vary significantly among the various groups distinguished in Table VIII-c. The relative share of capital consumption is greatest in residential construction, owing obviously to the existence of a large stock of residential buildings as compared with the moderate rate of gross additions to it during the period. In capital formation destined for business use the importance of the replacement share is only slightly less, if we exclude changes in business inventories, a net item not subject to capital depreciation. Its inclusion serves to reduce the relative share of capital consumption in the total of gross capital formation destined for business use, and makes this share significantly lower than in residential construction. The apportionment between replacement and net additions is strikingly different, however, in the volume destined for use by governmental agencies. In the latter, capital consumption ac-

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counts for only one-fifth of the average volume of gross capital formation. The measure of capital consumption by governmental agencies is admittedly crude and incomplete, in that depreciation on roads and sewers is not allowed for. But this omission is perhaps justified on the ground that in these public properties little capital depreciation really occurs, capital consumed being replaced through repairs and maintenance. And whatever may be said of the possible underestimate of public capital consumption in the estimate presented, its share in the gross capital formation destined for public use may reasonably be expected to be very much lower than in residential construction or business capital, because the stock of public capital must have been small compared with the substantial gross additions since 1919 and because the rate at which the existing durable commodities in the hands of the government would depreciate would be extremely low.

c Absolute volume compared with wealth

The absolute volume of as inclusive a total of net capital formation as can be obtained with the available data is on the average 5.3 billion dollars per year in current prices, and 4.3 billion in 1929 prices. The significance of these figures is, perhaps,

better comprehended when they are expressed in cumulative totals. If we add the net additions to the stock of capital goods that resulted during 1919-35 from the flow of producers' durable commodities to their ultimate domestic recipients, the volume of all new construction, net changes in business inventories and stocks of gold and silver, and net changes in claims against foreign countries, then, with each annual addition in current prices, the total amounts to 90.8 billion dollars; with these additions in 1929 prices, the total amounts to 73.8 billion. All this capital accumulation took place before the recent depression. The corresponding totals for the eleven years 1919-29 are, in current prices, 95.7 billion, in 1929 prices, 84.3 billion; and from 1930 through 1935 the net total added to the stock of capital goods was reduced 4.9 billion dollars in current prices, 10.5 billion in 1929 prices.

It is of interest to compare this total of capital formation with the stock of wealth, to which it was an addition. The latest acceptable estimate of national wealth for this country is that made as of December 31, 1922 by the Federal Trade Commission (see *National Wealth and Income*, Washington, 1926). According to this report, total wealth at the current valuation amounted at the end of

Table VIII-c

AVERAGE VOLUME OF GROSS CAPITAL FORMATION, CAPITAL CONSUMPTION AND NET CAPITAL FORMATION

(averages for 1919-1935)

	GROSS CAPITAL FORMATION, AVERAGE VOLUME PER YEAR (<i>millions of dollars</i>)	CAPITAL CONSUMPTION		NET CAPITAL FORMATION		
		VOLUME PER YEAR (<i>millions of dollars</i>)	PER- CENTAGE OF GROSS CAPITAL FORMATION	VOLUME PER YEAR (<i>millions of dollars</i>)	PER- CENTAGE OF GROSS CAPITAL FORMATION	PERCENT- AGE OF NET CAPITAL FORMATION (INCLU- SIVE TOTAL, LINE 5a)
<i>Current Prices</i>						
1 Business						
a Incl. net change in business inventories	8,361	6,057	72.4	2,305	27.6	43.2
b Excl. net change in business inventories	7,624	6,057	79.4	1,568	20.6	29.4
2 Residential construction	2,656	2,118	79.7	539	20.3	10.1
3 Public agencies	2,595	535	20.6	2,060	79.4	38.6
4 Net change in claims against foreign countries	437	0	0	437	100.0	8.2
5 Total						
a Incl. net change in business inventories	14,050	8,709	62.0	5,340	38.0	100.0
b Excl. net change in business inventories	13,313	8,709	65.4	4,603	34.6	86.2
<i>1929 Prices</i>						
1 Business						
a Incl. net change in business inventories	7,957	6,343	79.7	1,614	20.3	37.2
b Excl. net change in business inventories	7,680	6,343	82.6	1,337	17.4	30.8
2 Residential construction	2,691	2,248	83.5	443	16.5	10.2
3 Public agencies	2,541	558	22.0	1,982	78.0	45.6
4 Net change in claims against foreign countries	303	0	0	303	100.0	7.0
5 Total						
a Incl. net change in business inventories	13,492	9,149	67.8	4,342	32.2	100.0
b Excl. net change in business inventories	13,215	9,149	69.2	4,066	30.8	93.6

1922 to 353 billion dollars. This total includes, however, 39.8 billion of furniture and personal effects, 4.6 billion of motor vehicles (Table 1, p. 28), and 122.2 billion of land exclusive of improvements (Table 3, p. 34). The first and last items should be completely omitted from the stock of wealth to which net capital formation, as measured in Table VIII-3, could contribute; the same is true of the preponderant portion of the value of motor vehicles. If, accordingly, we subtract 165 billion dollars from the total, the value of man-made wealth (excluding consumers' goods but including residential buildings) is some 188 billion dollars, at the end of and at valuation of 1922. If we assume that the same wealth would not be greatly different from the amount indicated if revalued at 1929 prices, an assumption whose arbitrariness is perhaps reduced by the fact that the general commodity price level in the two years is approximately the same, we can make the desired comparisons. The wealth at the beginning of 1919 must have amounted, in 1929 prices, to 188 billion minus the sum of net capital formation for 1919-22, i.e., minus 22.7 billion, or 165.3 billion. Hence the cumulative addition to this stock of capital goods during the seventeen years, 1919-35, amounted to about 44 per cent; and at this arithmetic rate of increase, the stock would have been doubled in about forty years. The total increase before 1930, i.e., before the depression, amounted, however, to 51 per cent of the stock at the beginning of 1919; and at the pre-depression rate, the stock would have doubled in twenty-two years. Whether either of the rates of capital accumulation thus shown appears high, average or low is hard to say, because our knowledge of capital growth in the past, the only basis for judgment, is so scanty.

d *Distribution among component elements*

In considering the apportionment of total net capital formation among the distinguishable categories by type of user, the most striking feature is the relatively large amount destined for use by public agencies. Even if we disregard the rise in this item in 1934 and 1935, due largely to the influx of gold, the average volume for the period is not much below that of business net capital formation, and accounts for 30 per cent of the total. As indicated in Table VIII-c, this distribution of *net* capital formation makes a striking contrast to that of gross; when gross volumes are considered, capital formation destined for use by public agencies is less than one-third as large as that destined for use by business, and accounts for only 18 per

cent of the total. The explanation lies in the materially smaller allowance for consumption of durable capital goods used by public agencies than of goods used by business firms or embodied in residential real estate.

The reasonableness of this difference among the various categories of capital goods with respect to the magnitude of the allowance for consumption and the resulting shift in the distribution from gross to net volumes has already been commented on and may be supported further by a brief inspection of the 1922 estimate of national wealth already referred to. According to this estimate, the value of improvements embodied in streets, roads and other highway structures not covered under exempt real estate, and in exempt real estate amounted to 20.8 billion dollars (*National Wealth and Income*, Table 3). This left some 167 billion as the value of man-made wealth (i.e., excluding land) in use by business agencies or embodied in residential structures. Table 14 shows that the average volume of gross capital formation for use by public agencies was about 2.6 billion dollars, whereas that for use by business or resulting from residential construction amounted to about 11.0 billion. Thus even the gross additions were at a higher relative rate for capital destined for use by public agencies than for business or residential construction. If, furthermore, we take into consideration the naturally much lower rate of capital consumption of goods in public use, the results in Table VIII-c are easily comprehended.

However, gross rather than net capital formation provides the proper guide to the relative importance of the various categories of capital goods in the economic life and industrial structure of the nation. The line between replacement demand and expansion demand for capital goods is thin and tenuous; and it is the total volume that controls the relative importance of a given category of capital goods and of the changes in their flow. True, the relatively large share of public agencies in net capital formation, if continued, will eventually modify greatly the structure of national wealth, and perhaps also the structure of the current production of capital goods. But for the present, it is gross capital formation, with its materially different distribution among business, ultimate consumers and public agencies that provides the more valid notion of the relative importance of various capital goods categories in the functioning of the economic system.

Finally, the movements in the percentage distribution of net capital formation among its com

ponent elements parallel those observed for gross capital formation. The volume of public construction and hence of public capital formation accounts for an increasing percentage of total net capital formation; whereas the net changes in business inventories account for an algebraically diminishing proportion. These shifts in favor of public capital investment, and within business capital formation from investment in inventories to investment in capital equipment, are characteristic of the period since 1919, and even more marked for net capital formation than for gross.

4 COMPARISON WITH NATIONAL PRODUCT

Commodity flow and capital formation are in themselves component parts of a more comprehensive total that represents the current product of economic activity. Commodity flow covers only that part of economic activity whose result is embodied in new commodities, and excludes the services that are not so embodied. Gross capital formation represents only a part of the gross value of currently produced commodities and only that part of services not embodied in new commodities that enters the net change in claims against foreign countries. Net capital formation measures only that part of the currently produced net value of commodities and services which is embodied either in durable commodities and inventories or in the net change in claims against foreign countries. It is of interest to compare these three partial totals with correspondingly defined comprehensive totals that measure the complete product of the nation's economic system.

The total with which commodity flow and gross capital formation may be compared is designated below as the gross national product. It is defined as the value of all commodities and services produced during the year, excluding duplication among raw materials, semifinished goods, and all finished products (including services), but without allowance for the current consumption of durable commodities. We obtain this value by adding to national income, as it is usually measured, the deductions that represent the consumption of fixed capital equipment during the year. National income or net national product is the total with which net capital formation can be compared. Since we have estimates of national income since the War, a result of a recent study of the National Bureau of Economic Research; and since we have Mr. Fabricant's measures of capital consumption, the two totals of gross and net national product

needed for comparison with commodity flow and capital formation are easily obtainable.²

Before the comparison is made, two observations are in order. First, commodity flow and capital formation can be compared with national product only if the two sets of concepts are co-terminous. If commodity flow and gross capital formation include repairs and maintenance, thus allowing duplication beyond that represented by the inclusion of capital consumption as measured in depreciation, depletion, and fire loss charges, gross national product should similarly include an allowance for capital consumption represented by a theoretical repairs and maintenance amount assumed in the depreciation charges. If gross and net capital formation include consumers' movable durable commodities, such as passenger cars and furniture, this is tantamount to treating them as capital equipment for the production of services; and in that case both gross and net national product should include imputed income flowing from this type of capital equipment to the ultimate consumers who own and use it, and gross national product should include also the estimated consumption of this type of capital equipment. But, as mentioned above, the information available on both actual and theoretical repairs and maintenance is too inadequate for proper treatment of this item. Also, national product as measured continuously over the period does not include imputed income from consumers' durable commodities except that flowing from residential real estate (although some estimates of such income are available for a few years in the period); and no complete data are available on the current consumption of these commodities. For these reasons a conceptual similarity in the comparison possible with the available data is assured if commodity flow omits all repairs and maintenance; and if capital formation is confined to that destined for use by business units and public agencies, residential construction, and the net change in claims against foreign countries, but excludes all repairs and maintenance and the flow of consumers' movable durable commodities.

Second, even with this conceptual similarity assured, the statistical comparability of the two sets of estimates is still open to question. National income and gross national product have been esti-

² For a discussion of the concepts of national income and gross national product, their conceptual and statistical comparability to those of capital formation, see *National Income and Capital Formation, 1919-1935* (National Bureau of Economic Research, 1937), especially Part VI and Appendix D.

mated from significantly different sets of data than those for commodity flow and capital formation. In deriving both groups of estimates numerous approximations had to be made in order to bridge gaps in data; consequently, the results are subject to errors, whose direction and size in the two sets of estimates are not necessarily identical. It therefore seems best not to compare the two groups of estimates in annual terms, but rather to use a three-year moving average that would remove many of the erratic effects arising from possible limitations of the measures.

These two observations explain why Table VIII-4 uses only one of the variants of commodity flow and capital formation and why the comparison is carried through between pairs of series, each smoothed by a three-year moving average. We may now pass to the three sets of comparisons presented in the table.

As already indicated, gross commodity flow in Table VIII-4 includes all services whose costs enter the value of new commodities, i.e., not only the extractive and processing activities such as are rendered in agriculture, mining, manufacturing, and construction, but also transportation and distributive services rendered in the movement of currently produced commodities to their ultimate recipients and services provided by financial, service, and government institutions whose costs enter the value of newly produced finished commodities or of commodities going into inventories and foreign markets. On the other hand, the services not embodied in new commodities and hence not covered under gross commodity flow fall largely into three major divisions: services rendered (a) largely by individuals (with some use of commodities) to other individuals who are ultimate consumers (e.g., physicians' services to ultimate consumers, government services to ultimate consumers paid for by the latter); (b) largely by commodities (with some assistance from individuals) to ultimate consumers (e.g., services of residential buildings to ultimate consumers living in them, by transportation, communication, and other public utility agencies to ultimate consumers); (c) by both individuals and commodities to already existing commodities, so far as the latter are not employed in the production or movement of new commodities and hence so far as the cost of repairing and maintaining these already existing commodities does not enter the final cost of new commodities (e.g., repair and maintenance of residences or of other durable consumers' goods, and of all other durable goods used by agencies

outside the process of production and circulation of new commodities).

Table VIII-4 shows that the gross value of services embodied in new commodities accounts on the average for three-quarters of the gross national product, whether the two are measured in current or 1929 prices. If it were possible to exclude the consumption of durable commodities from both sides of the comparison, the percentage share of commodity flow would probably be somewhat smaller than that in Table VIII-4, since it may be assumed that capital consumption, relatively to finished output, is greater for services embodied in new commodities than for other services. But even on the most extreme assumption that all capital consumption should be imputed to the gross commodity flow and none to the services not embodied in new commodities, the change in the percentage distribution would be small. Thus, the net commodity flow would on this assumption amount in a year like 1928 (i.e., three-year average centered on that year) to 58.4 billion dollars; the net national product, similarly measured for that year is 80.4 billion; and the percentage of commodity flow to the total flow of commodities and services drops only from 75.6 to 72.6.

In terms of current prices the relative share of commodity flow in the gross national product declines over the period. But this decline is confined to the first and last few years of the period; and seems to be due primarily to the particularly severe decline in commodity prices from 1919 to 1922, and from 1929 to 1932. Thus, when an adjustment for price changes is made, the decline over the period in the relative share of commodity flow and the corresponding rise in the share of services not embodied in new commodities disappears almost completely. The adjustment for price changes is, however, necessarily approximate and any errors in it would be particularly significant in the residual item in line 5 of Table VIII-4. It therefore seems most reasonable to treat this evidence on changes in the allocation of gross national product between commodity flow and services not embodied in new commodities as suggestive rather than as definitive.

The gross capital formation totals used in Table VIII-4 exclude all repairs and maintenance and include among consumers' durable commodities only residential construction. As thus defined, gross capital formation accounts in most years for slightly over 20 per cent of the gross national product; but the share declines dras-

tically in years of depression, to 9 per cent for the three-year period centering in 1933. When gross capital formation is subtracted from the gross national product, the remainder represents consumers' outlay, i.e., the value of finished commodities purchased by domestic ultimate consumers. This outlay, as defined in Table VIII-4 to include purchases of all consumers' durable commodities except residential construction, accounts during most years for slightly under 80 per cent of the gross national product, the share rising to 90 per cent during the depression.

One aspect of the movement in this percentage apportionment deserves comment, namely, its stability before 1929. On the assumption that since 1919 the volume of gross national product had described a complete long swing, one would expect to observe its reflection in an upward movement of the ratio of gross capital formation to gross national product from 1919, or some succeeding year, to 1929. For in all cyclical oscillations, especially if they are of long duration, the volume of gross capital formation may be expected to rise more during the phase of expansion, just as it usually declines more during the phase of contraction. Gross capital formation did decline more after 1929, but its share did not increase before 1929. One reason for this stability may be looked for in the use of three-year moving averages; but their use has a relatively small effect since it did not conceal a marked decline after 1929. A more significant explanation may be that the long swing that culminated in 1929 may have begun before 1919. The War period, 1914-19, with its low volume of residential construction, was possibly characterized by a low ratio of gross capital formation to gross national product; although this surmise may be incorrect in view of the large net change in claims against foreign countries and extensive production of capital equipment during the War years. The trough of the ratio of gross capital formation to gross national product may have occurred before 1914, and the rise may have been from these low levels to the high plateau of 1920-29. Our study does not include years before 1919, but its results (in Table VIII-4) suggest the importance of carrying the analysis back at least to the first decade of the twentieth century, if one is to understand clearly the developments since 1919.

The first interesting conclusion suggested by the comparison of net capital formation with national income concerns the relatively small

proportion that net additions to the stock of capital goods, as measured by us, constitute of total national income. The average share over the period is about 8 per cent, in contrast to the share of the comparable measure of gross capital formation in gross national product of about 19 per cent. This difference in the percentage distribution is obviously due to the subtraction, in arriving at net capital formation, of all consumption of the stock of capital goods from the gross volume. It is thus seen that of the total *net* output of commodities and services only a relatively small fraction, even in the most prosperous years, can be characterized as net addition to the stock of capital goods. Even during prosperous years over 87 per cent of the current output is in the group of immediately consumed commodities and services.

This relatively small share of the net product that constitutes a net addition to the nation's stock of capital goods fluctuates violently over the period. Even with the short term fluctuations smoothed out by the application of a three-year moving average, it almost doubles from 1921 to 1926, when computed for volumes in current prices; and increases almost a half from 1921 to 1926, when computed for volumes in 1929 prices. Its decline after 1928-29 is, of course, still more marked. And instead of the stability during 1920-29 in the ratios of capital formation to national product, observed in the comparison of gross volumes, there is a definite upward movement to 1924 or 1926 in the ratios for the net volumes.

The volume of consumers' outlay, in contrast to the volume and share of net capital formation, shows no marked fluctuations, especially when the effect of changing price levels is removed. When measured in constant prices and in terms of a three-year moving average, it does not decline until 1930; and while the subsequent contraction to 1932 is fairly substantial, its movement over the period as a whole is distinctly upward. This contrast in movement and variability between consumers' outlay and capital formation clearly justifies the emphasis that economic science places upon the distinction between capital goods and consumable goods; and renders it important to provide separate and comprehensive measures of the volume of consumers' outlay and of capital formation as the basis for a further study of the various economic forces that operate to produce divergent movements in these two, essentially related, segments of the national product.

Table VIII—1

COMMODITY FLOW, BY MAJOR CLASSES, 1919–1935

Measures of the flow of finished commodities to ultimate domestic recipients, net changes in business inventories, volume of new construction, balance of foreign trade in commodities and in monetary metals, and repairs and maintenance of durable commodities are brought together in this table, to yield a comprehensive total of the flow of commodities and related services. Major classes by durability are distinguished; and the estimates are given in both current and 1929 prices. Percentage allocations of the more important totals are provided in Table VIII–1–A.

For discussion of this table see Preface to Part VIII, Section 1.

Table VIII-1

COMMODITY FLOW, BY MAJOR CLASSES

(millions of dollars)

	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935
	Current Prices																
I Perishable																	
1 Flow of finished commodities to ultimate consumers at the cost to them (Table V-10)	24,646	27,278	22,047	21,410	22,967	23,750	25,404	27,107	26,672	27,348	28,550	26,395	21,481	18,147	18,133	20,756	23,095
2 Net changes in inventories, finished and unfinished (Table VII-10)	+2,438	+2,143	-9	+614	+828	-907	+533	+410	+310	-358	+702	+580	+574	-623	-678		
3 Total	27,084	29,420	22,038	22,024	23,795	22,843	25,937	27,517	26,982	27,706	29,252	26,975	22,055	17,523	17,455		
II Semidurable																	
1 Flow of finished commodities to ultimate consumers at the cost to them (Table V-10)	10,451	12,156	9,736	10,023	11,324	10,735	11,361	11,917	12,032	12,193	12,382	10,731	9,024	6,722	6,513	7,512	8,151
2 Net changes in inventories, finished and unfinished (Table VII-10)	+425	+2,845	+237	+204	-182	+103	+83	+817	-121	+146	+183	-87	-451	-613	-277		
3 Total	10,876	15,001	9,973	10,227	11,142	10,838	11,444	12,734	11,911	12,339	12,565	10,644	8,572	6,109	6,235		
III Durable																	
1 Flow of consumers' durable finished commodities to ultimate consumers at the cost to them (Table V-10)	5,987	6,921	5,570	6,181	7,943	7,900	9,056	9,445	8,890	9,174	9,913	7,550	5,748	3,806	3,882	4,686	5,918
2 Flow of producers' durable finished commodities to ultimate users at the cost to them (Table V-10)	6,234	6,177	3,926	3,848	5,267	4,962	5,287	5,716	5,461	5,852	6,908	5,480	3,536	2,019	2,051	3,024	3,615
3 Net changes in inventories, finished and unfinished, and in stocks of silver and gold (Tables VII-10 and VII-11)	+1,033	+2,298	+586	-27	+2,654	-10	+853	+96	+4	-639	+1,400	-880	-1,432	-1,038	-305	+704 ¹	+1,399 ¹
4 Total	13,254	15,396	10,082	10,002	15,864	12,852	15,196	15,257	14,355	14,387	18,221	12,150	7,852	4,787	5,628		
IV Volume of new construction (Table VI-6)	5,915	6,336	6,105	8,383	9,643	10,491	11,811	11,593	11,787	11,572	10,518	8,629	6,109	3,496	3,230	4,363	5,068
V Unallocable																	
1 Net changes in misc. inventories (Table VII-10)	-20	+47	+15	+45	+67	+161	+217	+361	+161	-422	+274	-430	-198	-134	-51	-1,524 ²	+192
2 Balance of foreign trade in merchandise and in gold and silver movements ³	+4,326	+2,926	+1,279	+476	+78	+801	+819	+328	+856	+1,328	+740	+515	+508	+272	+357	-825	-1,839
3 Total	+4,306	+2,973	+1,294	+521	+145	+962	+1,036	+689	+1,017	+906	+1,014	+85	+310	+138	+306	-2,349	-1,820

Table VIII-1 (Continued)

	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935
VI Total flow of finished commodities to ultimate consumers (lines I-1 + II-1 + III-1 + III-2 + IV)	53,233	58,868	47,384	49,845	57,144	57,838	62,919	65,778	64,842	66,139	68,271	58,785	45,898	34,190	33,809	40,341	45,847
VII Production of new commodities, gross total	61,435	69,126	49,492	51,157	60,589	57,986	65,424	67,790	66,052	66,910	71,570	58,483	44,898	32,053	32,854	39,057	46,201
VIII Repairs and maintenance of durable commodities (Table VIII-3, lines 1b + 2b + 4b)	8,461	9,647	7,205	6,252	6,619	6,237	6,159	7,264	7,467	8,230	8,265	8,163	5,822	3,725	3,626		
IX Total production of new commodities and of related services	69,896	78,773	56,697	57,409	67,208	64,223	71,583	75,054	73,519	75,140	79,835	66,646	50,720	35,778	36,480		
1929 Prices																	
I Perishable																	
1 Flow of finished commodities to ultimate consumers at the cost to them (Table V-10)	20,030	21,143	22,051	22,827	23,732	25,576	25,438	26,635	27,164	27,156	28,488	27,970	26,690	26,342	27,325	26,920	26,215
2 Net changes in inventories, finished and unfinished (Table VII-9)	+1,626	+1,203	-275	+384	+785	-949	+416	+202	+287	+341	+702	+660	+929	-746	-1,181		
3 Total	21,656	22,346	21,776	23,211	24,517	24,627	25,854	26,837	27,451	27,497	29,190	28,630	27,620	25,596	26,144		
II Semidurable																	
1 Flow of finished commodities to ultimate consumers at the cost to them (Table V-10)	7,599	6,616	7,907	8,954	9,861	9,173	10,145	10,212	11,502	11,513	12,135	10,892	10,716	9,742	8,872	9,206	10,176
2 Net changes in inventories, finished and unfinished (Table VII-9)	+277	+1,556	+254	+163	-145	+80	+96	+671	-121	+136	+183	-97	-624	-1,006	-386		
3 Total	7,876	8,172	8,161	9,117	9,717	9,253	10,241	10,883	11,381	11,649	12,318	10,795	10,092	8,736	8,486		
III Durable																	
1 Flow of consumers' durable finished commodities to ultimate consumers at the cost to them (Table V-10)	5,821	5,707	4,580	5,819	7,522	7,873	8,817	9,752	9,364	9,555	9,894	7,875	6,577	4,704	4,645	5,259	6,756
2 Flow of producers' durable finished commodities to ultimate users at the cost to them (Table V-10)	4,633	4,735	3,303	3,858	5,058	4,838	5,368	5,761	5,993	6,083	6,891	5,791	4,012	2,601	2,779	3,714	4,312
3 Net changes in inventories, finished and unfinished, and in stocks of silver and gold (Tables VII-9 and VII-11)	+830	+1,485	+625	-44	+2,439	+12	+823	+87	+6	-648	+1,400	-951	-1,666	-1,301	-337	+1,065	+2,174
4 Total	11,284	11,927	8,508	9,635	15,019	12,723	15,008	15,600	15,363	14,990	18,185	12,715	8,923	6,004	7,087		

Table VIII-1 (Concluded)

	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935
IV Volume of new construction (Table VI-6)	5,879	4,886	6,170	8,790	9,100	10,019	11,592	11,388	11,623	11,530	10,518	8,869	6,886	4,372	3,935	4,948	5,902
V Unallocable																	
1 Net changes in misc. inven- tories (Table VII-9)	-18	+30	+22	+40	+58	+149	+207	+357	+160	-421	+274	-431	-211	-158	-64	-2,140 ²	-65 ²
2 Balance of foreign trade in merchandise and in gold and silver movements ³	+2,291	+1,596	+654	+98	-31	+141	+905	+697	+1,248	+1,507	+740	+274	+368	+10	-146	-755	-1,847
3 Total	+2,273	+1,626	+676	+138	+27	+290	+1,112	+1,054	+1,408	+1,086	+1,014	-157	+157	-148	-210	-2,895	-1,912
VI Total flow of finished com- modities to ultimate consum- ers (lines I-1 + II-1 + III-1 + III-2 + IV)	43,962	43,087	44,011	50,248	55,273	57,479	61,360	63,748	65,646	65,837	67,926	61,397	54,881	47,761	47,556	50,047	53,361
VII Production of new commodi- ties, gross total	48,968	48,957	45,291	50,889	58,380	56,912	63,807	65,762	67,226	66,752	71,225	60,852	53,678	44,560	45,442	47,856	52,848
VIII Repairs and maintenance of durable commodities (Table VIII-3, lines 1b + 2b + 4b)	7,983	7,314	7,134	6,632	6,295	6,106	6,224	7,352	7,483	8,326	8,265	8,406	6,537	4,543	4,361		
IX Total production of new com- modities and of related ser- vices	56,951	56,271	52,425	57,521	64,675	63,018	70,031	73,114	74,709	75,078	79,490	69,258	60,215	49,103	49,803		

¹Includes only net changes in stocks of silver and gold. Total changes in business inventories for 1934 and 1935 are given in line V-1.

²Since it was not possible in 1934 and 1935 to apportion inventories according to durability, the total net change in business inventories has been treated as unallocable.

³These data in current prices were obtained from Table XIV, Balance of International Payments of the U.S., 1936 (Department of Commerce). Estimates in 1929 prices were obtained by utilizing the Department of Commerce export and import commodity price indexes, and a silver price index computed from the annual price per fine ounce of silver in New York (see Note A to Table VII-11, line II-3).

PERCENTAGE ALLOCATION OF COMMODITY FLOW

	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935
Current Prices																	
I Percentage allocation of total flow of finished commodities																	
1 Perishable	46.3	46.3	46.5	43.0	40.2	41.1	40.4	41.2	41.1	41.3	41.8	44.9	46.8	53.1	53.6	51.5	50.4
2 Semidurable	19.6	20.6	20.5	20.1	19.8	18.6	18.1	18.1	18.6	18.4	18.1	18.3	19.7	19.7	19.3	18.6	17.8
3 Consumers' durable	11.2	11.8	11.8	12.4	13.9	13.7	14.4	14.4	13.7	13.9	14.5	12.8	12.5	11.1	11.5	11.6	12.9
4 Producers' durable	11.7	10.5	8.3	7.7	9.2	8.6	8.4	8.7	8.4	8.8	10.1	9.3	7.7	5.9	6.1	7.5	7.9
5 Construction	11.1	10.8	12.9	16.8	16.9	18.1	18.8	17.6	18.2	17.5	15.4	14.7	13.3	10.2	9.6	10.8	11.1
6 All durable (lines 3 + 4 + 5)	34.0	33.1	33.0	36.9	40.0	40.4	41.6	40.7	40.3	40.2	40.0	36.8	33.5	27.2	27.2	29.9	31.9
7 Total flow of finished commodities	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
II Percentage allocation of gross total of new commodities																	
1 Perishable	44.1	42.6	44.5	43.1	39.3	39.4	39.6	40.6	40.8	41.4	40.9	46.1	49.1	54.7	53.1		
2 Semidurable	17.7	21.7	20.2	20.0	18.4	18.7	17.5	18.8	18.0	18.4	17.6	18.2	19.1	19.1	19.0		
3 All durable (excl. construction)	21.6	22.3	20.4	19.6	26.2	22.2	23.2	22.5	21.7	21.5	25.5	20.8	17.5	14.9	17.1		
4 Construction	9.6	9.2	12.3	16.4	15.9	18.1	18.1	17.1	17.8	17.3	14.7	14.8	13.6	10.9	9.8		
5 Unallocable	7.0	4.3	2.6	1.0	0.2	1.7	1.6	1.0	1.5	1.4	1.4	0.1	0.7	0.4	0.9		
6 Gross total of new commodities	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0		
7 Repairs and maintenance	13.8	14.0	14.6	12.2	10.9	10.8	9.4	10.7	11.3	12.3	11.5	14.0	13.0	11.6	11.0		
1929 Prices																	
I Percentage allocation of total flow of finished commodities																	
1 Perishable	45.6	49.1	50.1	45.4	42.9	44.5	41.5	41.8	41.4	41.2	41.9	45.6	48.6	55.2	57.5	53.8	49.1
2 Semidurable	17.3	15.4	18.0	17.8	17.8	16.0	16.5	16.0	17.5	17.5	17.9	17.7	19.5	20.4	18.7	18.4	19.1
3 Consumers' durable	13.2	13.2	10.4	11.6	13.6	13.7	14.4	15.3	14.3	14.5	14.6	12.8	12.0	9.8	9.8	10.5	12.7
4 Producers' durable	10.5	11.0	7.5	7.7	9.2	8.4	8.7	9.0	9.1	9.2	10.1	9.4	7.3	5.4	5.8	7.4	8.1
5 Construction	13.4	11.3	14.0	17.5	16.5	17.4	18.9	17.9	17.7	17.5	15.5	14.4	12.5	9.2	8.3	9.9	11.1
6 All durable (lines 3 + 4 + 5)	37.1	35.5	31.9	36.8	39.3	39.5	42.0	42.2	41.1	41.2	40.2	36.6	31.8	24.4	23.9	27.8	31.9
7 Total flow of finished commodities	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
II Percentage allocation of gross total of new commodities																	
1 Perishable	44.2	45.6	48.1	45.6	42.0	43.3	40.5	40.8	40.8	41.2	41.0	47.0	51.5	57.4	57.5		
2 Semidurable	16.1	16.7	18.0	17.9	16.6	16.3	16.0	16.5	16.9	17.5	17.3	17.7	18.8	19.6	18.7		
3 All durable (excl. construction)	23.0	24.4	18.8	18.9	25.7	22.4	23.5	23.7	22.9	22.5	25.5	20.9	16.6	13.5	15.6		
4 Construction	12.0	10.0	13.6	17.3	15.6	17.6	18.2	17.3	17.3	17.3	14.8	14.6	12.8	9.8	8.7		
5 Unallocable	4.6	3.3	1.5	0.3	less than 0.1	0.5	1.7	1.6	1.9	1.6	1.4	-0.3	0.3	-0.3	-0.5		
6 Gross total of new commodities	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0		
7 Repairs and maintenance	16.3	14.9	15.8	13.0	10.8	10.7	9.8	11.2	11.1	12.5	11.6	13.8	12.2	10.2	9.6		

Table VIII—2

GROSS CAPITAL FORMATION, BY TYPE OF USER, 1919–1935

Measures of the various elements of gross capital formation are presented. The classification by type of user, and within these classes, among the flow of finished commodities, construction, and net changes in inventories, makes it possible to obtain various totals of gross capital formation, corresponding to the different variants of this concept. The estimates are presented in both current and 1929 prices; Table VIII–2–A provides the percentage allocations of the more important totals.

For discussion of this table see Preface to Part VIII, Section 2.

Table VIII-2
GROSS CAPITAL FORMATION BY TYPE OF USER
(millions of dollars)

	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935
Current Prices																	
Destined for use by																	
1 Consumers																	
a Flow of consumers' durable commodities	5,987	6,921	5,570	6,181	7,943	7,900	9,056	9,445	8,890	9,174	9,913	7,550	5,748	3,806	3,882	4,686	5,918
b Repairs and servicing of consumers' durable commodities (Table V-10)	361	486	470	455	528	594	660	704	759	832	922	859	788	719	702		
c Residential construction	1,732	1,493	2,241	3,524	4,422	4,713	5,202	4,757	4,524	4,255	3,010	1,805	1,262	444	392	458	923
2 Business																	
a Flow of producers' durable commodities	6,234	6,177	3,926	3,948	5,267	4,962	5,287	5,716	5,461	5,852	6,908	5,480	3,536	2,019	2,051	3,024	3,615
b Repairs and servicing of producers' durable commodities (Table V-10)	1,857	2,155	1,581	1,555	1,928	1,662	1,646	1,719	1,633	1,585	1,654	1,332	943	648	644		
c Business construction	2,762	3,129	2,186	2,783	3,300	3,513	4,062	4,366	4,477	4,385	4,581	3,800	2,232	1,097	936	1,180	1,461
d Total changes in business inventories	+4,132	+7,375	+54	+534	+3,016	-917	+1,788	+1,586	+464	-321	+2,414	-1,128	-1,375	-2,461	-1,129	-1,524	+19
3 Public agencies																	
a Public construction	1,422	1,714	1,678	2,076	1,921	2,264	2,546	2,470	2,786	2,932	2,928	3,023	2,615	1,955	1,902	2,726	2,684
b Changes in stocks of silver and gold	-256	-42	+775	+302	+351	+264	-102	+98	-110	-236	+145	+311	-132	+53	-182	+1,065	+2,174
4 Unallocable																	
a Net changes in claims against foreign countries	+3,315	+2,254	+628	+215	-78	+446	+428	+44	+606	+957	+312	+371	+326	+40	+298	-868	-1,868
b Construction repairs and maintenance (Table VI-10)	6,243	7,006	5,154	4,242	4,163	3,981	3,853	4,841	5,075	5,813	5,689	5,972	4,091	2,358	2,280		
Various totals of gross capital formation																	
5 Most inclusive	33,789	38,668	24,263	25,715	32,761	29,382	34,426	35,746	34,565	35,228	38,476	29,375	20,034	10,673	11,776		
a Consumers' (lines 1a + 1b + 1c)	8,080	8,900	8,281	10,160	12,893	13,207	14,918	14,906	14,173	14,261	13,845	10,214	7,798	4,969	4,976		
b Business (lines 2a + 2b + 2c + 2d)	14,985	18,836	7,747	8,720	13,511	9,220	12,783	13,387	12,035	11,501	15,557	9,484	5,336	1,303	2,502		
c Public (lines 3a + 3b)	1,166	1,672	2,453	2,378	2,272	2,528	2,444	2,568	2,676	2,696	3,073	3,334	2,483	2,008	1,720		
d Unallocable (lines 4a + 4b)	9,553	9,260	5,782	4,457	4,085	4,427	4,281	4,885	5,681	6,770	6,001	6,343	4,417	2,398	2,578		
6 Excluding all repairs and maintenance	25,328	29,021	17,058	19,463	26,142	23,145	28,267	28,482	27,098	26,998	30,211	21,212	14,212	6,953	8,150	10,747	14,926
a Consumers' (lines 1a + 1c)	7,719	8,414	7,811	9,705	12,365	12,613	14,258	14,202	13,414	13,429	12,923	9,355	7,010	4,250	4,274	5,144	6,841
b Business (lines 2a + 2c + 2d)	13,128	16,681	6,166	7,165	11,583	7,558	11,137	11,668	10,402	9,916	13,903	8,152	4,393	655	1,858	2,680	5,095
c Public (lines 3a + 3b)	1,166	1,672	2,453	2,378	2,272	2,528	2,444	2,568	2,676	2,696	3,073	3,334	2,483	2,008	1,720	3,791	4,858
d Unallocable (line 4a)	3,315	2,254	628	215	-78	446	428	44	606	957	312	371	326	40	298	-868	-1,868

	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935
7 Including repairs and maintenance but excluding movable consumers' durable commodities	27,441	31,261	18,223	19,079	24,290	20,888	24,710	25,597	24,916	25,222	27,641	20,966	13,498	6,153	7,192		
a Consumers' (line 1c)	1,732	1,493	2,241	3,524	4,422	4,713	5,202	4,757	4,524	4,255	3,010	1,805	1,262	444	392		
b Business (lines 2a + 2b + 2c + 2d)	14,985	18,836	7,747	8,720	13,511	9,220	12,783	13,387	12,035	11,501	15,557	9,484	5,336	1,303	2,502		
c Public (lines 3a + 3b)	1,166	1,672	2,453	2,378	2,272	2,528	2,444	2,568	2,676	2,696	3,073	3,334	2,483	2,008	1,720		
d Unallocable (lines 4a + 4b)	9,558	9,260	5,782	4,457	4,085	4,427	4,281	4,885	5,681	6,770	6,001	6,343	4,417	2,398	2,578		
8 Excluding all repairs and maintenance and consumers' movable durable commodities	19,341	22,100	11,488	13,282	18,199	15,245	19,211	19,037	18,208	17,824	20,298	13,662	8,464	3,147	4,268	6,061	9,008
a Consumers' (line 1c)	1,732	1,493	2,241	3,524	4,422	4,713	5,202	4,757	4,524	4,255	3,010	1,805	1,262	444	392	458	923
b Business (lines 2a + 2c + 2d)	13,128	16,681	6,166	7,165	11,583	7,558	11,137	11,668	10,402	9,916	13,903	8,152	4,393	655	1,858	2,680	5,095
c Public (lines 3a + 3b)	1,166	1,672	2,453	2,378	2,272	2,528	2,444	2,568	2,676	2,696	3,073	3,334	2,483	2,008	1,720	3,791	4,888
d Unallocable (line 4a)	3,315	2,254	628	215	-78	446	428	44	606	957	312	371	326	40	298	-868	-1,868

1929 Prices

Destined for use by																	
1 Consumers																	
a Flow of consumers' durable commodities	5,821	5,707	4,580	5,819	7,522	7,873	8,817	9,752	9,364	9,555	9,894	7,875	6,577	4,704	4,645	5,259	6,756
b Repairs and servicing of consumers' durable commodities (Table V-10)	281	335	364	433	539	614	695	781	822	863	922	912	884	809	799	594	1,198
c Residential construction	1,664	1,135	2,250	3,797	4,248	4,589	5,218	4,757	4,515	4,268	3,010	1,865	1,506	600	548		
2 Business																	
a Flow of producers' durable commodities	4,633	4,735	3,303	3,858	5,058	4,838	5,368	5,761	5,993	6,083	6,891	5,791	4,012	2,601	2,779	3,714	4,312
b Repairs and servicing of producers' durable commodities (Table V-10)	1,496	1,578	1,559	1,752	1,828	1,689	1,748	1,815	1,656	1,673	1,654	1,356	1,041	787	785	1,403	1,741
c Business construction	2,776	2,476	2,221	2,973	3,186	3,408	4,026	4,325	4,467	4,391	4,581	3,884	2,481	1,332	1,166	2,950	2,963
d Total changes in business inventories	+2,923	+4,323	-142	+248	+2,793	-970	+1,644	+1,220	+442	-356	+2,414	-1,131	-1,441	-3,265	-1,790	-2,140	-65
3 Public agencies																	
a Public construction	1,439	1,275	1,719	2,020	1,666	2,022	2,347	2,306	2,641	2,871	2,928	3,120	2,899	2,440	2,222	2,950	2,963
b Changes in stocks of silver and gold	-208	-49	+768	+295	+344	+262	-102	+97	-110	-236	+145	+312	-131	+54	-178	+704	+1,399
4 Unallocable																	
a Net changes in claims against foreign countries	+2,280	+1,391	+613	+212	-74	+433	+394	+42	+605	+943	+312	+409	+426	+59	+431	-1,104	-2,226
b Construction repairs and maintenance (Table VI-10 and price index in Note D to Table VI-5)	6,206	5,401	5,211	4,447	3,928	3,803	3,781	4,756	5,005	5,790	5,689	6,138	4,612	2,947	2,777		

Table VIII-2 (Concluded)

	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935
Various totals of gross capital formation																	
5 Most inclusive	29,311	28,307	22,426	25,854	31,038	28,561	33,936	35,612	35,400	35,845	38,440	30,531	22,866	13,068	14,184		
a Consumers' (lines 1a + 1b + 1c)	7,766	7,177	7,174	10,049	12,309	13,076	14,730	15,290	14,701	14,686	13,826	10,652	8,967	6,113	5,992		
b Business (lines 2a + 2b + 2c + 2d)	11,828	13,112	6,941	8,831	12,865	8,965	12,786	13,121	12,558	11,791	15,540	9,900	6,093	1,455	2,940		
c Public (lines 3a + 3b)	1,231	1,226	2,487	2,315	2,010	2,284	2,245	2,403	2,531	2,635	3,073	3,432	2,768	2,494	2,044		
d Unallocable (lines 4a + 4b)	8,486	6,792	5,824	4,659	3,854	4,236	4,175	4,798	5,610	6,733	6,001	6,547	5,038	3,006	3,208		
6 Excluding all repairs and maintenance	21,328	20,993	15,292	19,222	24,743	22,455	27,712	28,260	27,917	27,519	30,175	22,125	16,329	8,525	9,823	11,380	16,078
a Consumers' (lines 1a + 1c)	7,485	6,842	6,810	9,616	11,770	12,462	14,035	14,509	13,879	13,823	12,904	9,740	8,083	5,304	5,193	5,853	7,954
b Business (lines 2a + 2c + 2d)	10,332	11,534	5,382	7,079	11,037	7,276	11,038	11,306	10,902	10,118	13,886	8,544	5,052	668	2,155	2,977	5,988
c Public (lines 3a + 3b)	1,231	1,226	2,487	2,315	2,010	2,284	2,245	2,403	2,531	2,635	3,073	3,432	2,768	2,494	2,044	3,654	4,362
d Unallocable (line 4a)	2,280	1,391	613	212	-74	433	394	42	605	943	312	409	426	59	431	-1,104	-2,226
7 Including repairs and maintenance but excluding movable consumers' durable commodities	23,209	22,265	17,482	19,602	22,977	20,074	24,424	25,079	25,214	25,427	27,624	21,744	15,405	7,555	8,740		
a Consumers' (line 1c)	1,664	1,135	2,230	3,797	4,248	4,589	5,218	4,757	4,515	4,268	3,010	1,865	1,506	600	548		
b Business (lines 2a + 2b + 2c + 2d)	11,828	13,112	6,941	8,831	12,865	8,965	12,786	13,121	12,558	11,791	15,540	9,900	6,093	1,455	2,940		
c Public (lines 3a + 3b)	1,231	1,226	2,487	2,315	2,010	2,284	2,245	2,403	2,531	2,635	3,073	3,432	2,768	2,494	2,044		
d Unallocable (lines 4a + 4b)	8,486	6,792	5,824	4,659	3,854	4,236	4,175	4,798	5,610	6,733	6,001	6,547	5,038	3,006	3,208		
8 Excluding all repairs and maintenance and consumers' movable durable commodities	15,507	15,286	10,712	13,403	17,221	14,582	18,895	18,508	18,553	17,964	20,281	14,250	9,752	3,821	5,178	6,121	9,322
a Consumers' (line 1c)	1,664	1,135	2,230	3,797	4,248	4,589	5,218	4,757	4,515	4,268	3,010	1,865	1,506	600	548	594	1,198
b Business (lines 2a + 2c + 2d)	10,332	11,534	5,382	7,079	11,037	7,276	11,038	11,306	10,902	10,118	13,886	8,544	5,052	668	2,155	2,977	5,988
c Public (lines 3a + 3b)	1,231	1,226	2,487	2,315	2,010	2,284	2,245	2,403	2,531	2,635	3,073	3,432	2,768	2,494	2,044	3,654	4,362
d Unallocable (line 4a)	2,280	1,391	613	212	-74	433	394	42	605	943	312	409	426	59	431	-1,104	-2,226

PERCENTAGE ALLOCATION OF GROSS CAPITAL FORMATION

	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935
Current Prices																	
I Most inclusive total (Table VIII-2, line 5)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0		
1 Consumers	23.9	23.1	34.1	39.5	39.3	44.9	43.3	41.7	41.0	40.5	36.0	34.7	38.9	46.6	42.3		
a Flow of consumers' durable commodities	17.7	17.9	23.0	24.0	24.2	26.9	26.3	26.4	25.7	26.0	25.8	25.7	28.7	35.7	33.0		
b Repairs and servicing of consumers' durable commodities	1.1	1.3	1.9	1.8	1.6	2.0	1.9	2.0	2.2	2.4	2.4	2.9	3.9	6.7	6.0		
c Residential construction	5.1	3.9	9.2	13.7	13.5	16.0	15.1	13.3	13.1	12.1	7.8	6.1	6.3	4.2	3.3		
2 Business	44.3	48.8	31.9	33.9	41.3	31.5	37.2	37.4	34.8	32.6	40.5	32.3	26.5	12.2	21.3		
a Flow of producers' durable commodities	18.4	16.0	16.2	15.0	16.1	16.9	15.4	16.0	15.8	16.6	18.0	18.7	17.6	18.9	17.4		
b Repairs and servicing of producers' durable commodities	5.5	5.6	6.5	6.0	5.9	5.7	4.8	4.8	4.7	4.5	4.3	4.5	4.7	6.1	5.5		
c Business construction	8.2	8.1	9.0	10.8	10.1	12.0	11.8	12.2	13.0	12.4	11.9	12.9	11.1	10.3	7.9		
d Total changes in business inventories	12.2	19.1	0.2	2.1	9.2	-3.1	5.2	4.4	1.3	-0.9	6.3	-3.8	-6.9	-23.1	-9.5		
3 Public agencies	3.4	4.3	10.1	9.3	7.0	8.6	7.1	7.2	7.8	7.6	8.0	11.4	12.4	18.8	14.7		
a Public construction	4.2	4.4	6.9	8.1	5.9	7.7	7.4	6.9	8.1	8.3	7.6	10.3	13.1	18.3	16.2		
b Changes in stocks of silver and gold	-0.8	-0.1	3.2	1.2	1.1	0.9	-0.3	0.3	-0.3	-0.7	0.4	1.1	-0.7	0.5	-1.5		
4 Unallocable	28.3	23.9	23.8	17.3	12.5	15.0	12.4	13.6	16.5	19.2	15.6	21.6	22.0	22.5	21.9		
a Net changes in claims against foreign countries	9.8	5.8	2.6	0.8	-0.2	1.5	1.2	0.1	1.8	2.7	0.8	1.3	1.6	0.4	2.5		
b Construction repairs and maintenance	18.5	18.1	21.2	16.5	12.7	13.5	11.2	13.5	14.7	16.5	14.8	20.3	20.4	22.1	19.4		
II Excluding all repairs and maintenance (Table VIII-2, line 6)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0		
1 Consumers	30.4	28.9	45.8	49.9	47.3	54.5	50.4	49.9	49.5	49.8	42.8	44.1	49.3	61.1	52.4	100.0	100.0
a Flow of consumers' durable commodities	23.6	23.8	32.7	31.8	30.4	34.1	32.0	33.2	32.8	34.0	32.8	35.6	40.4	54.7	47.6	43.6	39.6
c Residential construction	6.8	5.1	13.1	18.1	16.9	20.4	18.4	16.7	16.7	15.8	10.0	8.5	8.9	6.4	4.8	4.3	6.2
2 Business	51.8	57.5	36.1	36.8	44.3	32.6	39.4	41.0	38.4	36.7	46.1	38.4	30.9	9.4	22.8	24.9	33.9
a Flow of producers' durable commodities	24.6	21.3	23.0	19.8	20.2	21.4	18.7	20.1	20.2	21.7	22.9	25.8	24.9	29.0	25.2	28.1	24.2
c Business construction	10.9	10.8	12.8	14.3	12.6	15.2	14.4	15.3	16.5	16.2	15.2	17.9	15.7	15.8	11.5	11.0	9.8
d Total changes in business inventories	16.3	25.4	0.3	2.7	11.5	-4.0	6.3	5.6	1.7	-1.2	8.0	-5.3	-9.7	-35.4	-13.9	-14.2	0.1
3 Public agencies	4.6	6.0	14.3	12.3	8.6	10.9	8.6	9.0	9.9	10.0	10.2	15.8	17.5	28.9	21.1	35.3	32.6
a Public construction	5.6	5.9	9.8	10.7	7.3	9.8	9.0	8.7	10.3	10.9	9.7	14.3	18.4	28.1	23.3	25.4	18.0
b Changes in stocks of silver and gold	-1.0	0.1	4.5	1.6	1.3	1.1	-0.4	0.3	-0.4	-0.9	0.5	1.5	-0.9	0.8	-2.2	9.9	14.6
4 Unallocable																	
a Net changes in claims against foreign countries	13.1	7.8	3.7	1.1	-0.3	1.9	1.5	0.2	2.2	3.5	1.0	1.7	2.3	0.6	3.7	-8.1	-12.5

Table VIII-2-A (Continued)

	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935
III Excluding all repairs and maintenance and consumers' movable durable commodities (Table VIII-2, line 8)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1 Consumers	9.0	6.8	19.5	26.5	24.3	30.9	27.1	25.0	24.8	23.9	14.8	13.2	14.9	14.1	9.2	7.6	10.2
c Residential construction	67.9	75.6	53.7	54.0	63.7	49.5	57.9	61.2	57.1	55.6	68.5	59.6	52.0	20.9	43.5	44.3	56.5
2 Business	32.2	28.0	34.2	29.0	29.0	32.5	27.5	30.0	30.0	32.8	34.0	40.1	41.8	84.2	48.1	49.9	40.1
a Flow of producers' durable commodities	14.3	14.2	19.0	21.0	18.1	23.0	21.1	22.9	24.6	24.6	22.6	27.8	26.4	34.9	21.9	19.5	16.2
c Business construction	21.4	33.4	0.5	4.0	16.6	-6.0	9.3	8.3	2.5	-1.8	11.9	-8.3	-16.2	-78.2	-26.5	-25.1	0.2
d Total changes in business inventories	6.1	7.6	21.3	17.9	12.5	16.6	12.8	13.5	14.7	15.1	15.1	24.4	29.3	63.8	40.3	62.6	53.9
3 Public agencies	7.4	7.8	14.6	15.6	10.6	14.9	13.3	13.0	15.3	16.4	14.4	22.1	30.9	62.1	44.6	45.0	29.8
a Public construction	-1.3	-0.2	6.7	2.3	1.9	1.7	-0.5	0.5	-0.6	-1.3	0.7	2.3	-1.6	1.7	-4.3	17.6	24.1
b Changes in stocks of silver and gold	17.1	10.2	5.5	1.6	-0.4	2.9	2.2	0.2	3.3	5.4	1.5	2.7	3.9	1.3	7.0	-14.3	-20.7
4 Unallocable																	
a Net changes in claims against foreign countries																	

1929 Prices

	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935
I Most inclusive total (Table VIII-2, line 5)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1 Consumers	26.6	25.4	31.9	38.9	39.6	45.8	43.4	43.0	41.6	41.0	35.9	34.9	39.3	46.8	42.2		
a Flow of consumers' durable commodities	19.9	20.2	20.4	22.5	24.2	27.6	26.0	27.4	26.5	26.7	25.7	25.8	28.8	36.0	32.7		
b Repairs and servicing of consumers' durable commodities	1.0	1.2	1.6	1.7	1.7	2.1	2.0	2.2	2.3	2.4	2.4	3.0	3.9	6.2	5.6		
c Residential construction	5.7	4.0	9.9	14.7	13.7	16.1	15.4	13.4	12.8	11.9	7.8	6.1	6.6	4.6	3.9		
2 Business	40.4	46.3	31.0	34.2	41.5	31.3	37.7	36.8	35.4	32.9	40.4	32.4	26.7	11.1	20.7		
a Flow of producers' durable commodities	15.8	16.7	14.7	14.9	16.3	16.9	15.8	16.2	16.9	17.0	17.9	19.0	17.5	19.9	19.6		
b Repairs and servicing of producers' durable commodities	5.1	5.6	7.0	6.8	5.9	5.9	5.2	5.1	4.7	4.7	4.3	4.4	4.6	6.0	5.5		
c Business construction	9.5	8.7	9.9	11.5	10.3	11.9	11.9	12.1	12.6	12.2	11.9	12.7	10.9	10.2	8.2		
d Total changes in business inventories	10.0	15.3	-0.6	1.0	9.0	-3.4	4.8	3.4	1.2	-1.0	6.3	-3.7	-6.3	-25.0	-12.6		
3 Public agencies	4.2	4.3	11.1	8.9	6.5	8.0	6.6	6.8	7.2	7.3	8.0	11.2	12.1	19.1	14.4		
a Public construction	4.9	4.5	7.7	7.8	5.4	7.1	6.9	6.5	7.5	8.0	7.6	10.2	12.7	18.7	15.7		
b Changes in stocks of silver and gold	-0.7	-0.2	3.4	1.1	1.1	0.9	-0.3	0.3	-0.3	-0.7	0.4	1.0	-0.6	0.4	-1.3		
4 Unallocable	29.0	24.0	25.9	18.0	12.5	14.8	12.3	13.5	15.8	18.8	15.6	21.4	22.1	23.1	22.6		
a Net changes in claims against foreign countries	7.8	4.9	2.7	0.8	-0.2	1.5	1.2	0.1	1.7	2.6	0.8	1.3	1.9	0.5	3.0		
b Construction repairs and maintenance	21.2	19.1	23.2	17.2	12.7	13.3	11.1	13.4	14.1	16.2	14.8	20.1	20.2	22.6	19.6		

Table VIII-2-A (Concluded)

	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935
II Excluding all repairs and maintenance (Table VIII-2, line 6)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1 Consumers	35.1	32.6	44.6	50.1	47.6	55.5	50.6	51.3	49.7	50.2	42.8	44.0	49.5	62.2	52.9	51.4	49.5
a Flow of consumers durable commodities	27.3	27.2	30.0	30.3	30.4	35.1	31.8	34.5	33.5	34.7	32.8	35.6	40.3	55.2	47.3	46.2	42.0
c Residential construction	7.8	5.4	14.6	19.8	17.2	20.4	18.8	16.8	16.2	15.5	10.0	8.4	9.2	7.0	5.6	5.2	7.5
2 Business	48.4	55.0	35.2	36.9	44.6	32.4	39.8	40.0	39.1	36.8	46.0	38.7	31.0	7.8	22.0	26.1	37.2
a Flow of producers durable commodities	21.7	22.6	21.6	20.1	20.4	21.5	19.4	20.4	21.5	22.1	22.8	26.2	24.6	30.5	28.3	32.6	26.8
c Business construction	13.0	11.8	14.5	15.5	12.9	15.2	14.5	15.3	16.0	16.0	15.2	17.6	15.2	15.6	11.9	12.3	10.8
d Total changes in business inventories	13.7	20.6	-0.9	1.3	11.3	-4.3	5.9	4.3	1.6	-1.3	8.0	-5.1	-8.8	-38.3	-18.2	-18.8	-0.4
3 Public agencies	5.7	5.9	16.2	12.0	8.1	10.2	8.1	8.5	9.1	9.5	10.2	15.5	17.0	29.2	20.8	32.1	27.1
a Public construction	6.7	6.1	11.2	10.5	6.7	9.0	8.5	8.2	9.5	10.4	9.7	14.1	17.8	28.6	22.6	25.9	18.4
b Changes in stocks of silver and gold	-1.0	-0.2	5.0	1.5	1.4	1.2	-0.4	0.3	-0.4	-0.9	0.5	1.4	-0.8	0.6	-1.8	6.2	8.7
4 Unallocable																	
a Net changes in claims against foreign countries	10.7	6.6	4.0	1.1	-0.3	1.9	1.4	0.1	2.2	3.4	1.0	1.8	2.6	0.7	4.4	-9.7	-13.8
III Excluding all repairs and maintenance and consumers' movable durable commodities (Table VIII-2, line 8)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1 Consumers	10.7	7.4	20.8	28.3	24.7	31.5	27.6	25.7	24.3	23.8	14.8	13.1	15.4	15.7	10.6	9.7	12.9
c Residential construction	66.6	76.5	50.2	52.9	64.1	49.9	58.4	61.1	58.8	56.3	68.5	60.0	51.7	17.3	41.6	48.6	64.3
2 Business	29.9	31.0	30.8	28.8	29.4	33.2	28.4	31.1	32.3	33.9	34.0	40.6	41.1	68.1	53.7	60.7	46.3
a Flow of producers' durable commodities	17.9	16.2	20.7	22.2	18.5	23.4	21.3	23.4	24.1	24.4	22.6	27.3	25.4	34.9	22.5	22.9	18.7
c Business construction	18.8	28.3	-1.3	1.9	16.2	-6.7	8.7	6.6	2.4	-2.0	11.9	-7.9	-14.8	-85.7	-34.6	-35.0	-0.7
d Total changes in business inventories	8.0	8.0	23.2	17.3	11.7	15.7	11.9	13.0	13.6	14.7	15.1	24.1	28.4	65.3	39.5	59.7	46.8
3 Public agencies	9.3	8.3	16.0	15.1	9.7	13.9	12.4	12.5	14.2	16.0	14.4	21.9	29.7	63.9	42.9	48.2	31.8
a Public construction	-1.3	-0.3	7.2	2.2	2.0	1.8	-0.5	0.5	-0.6	-1.3	0.7	2.2	-1.3	1.4	-3.4	11.5	15.0
b Changes in stocks of silver and gold																	
4 Unallocable																	
a Net changes in claims against foreign countries	14.7	9.1	5.7	1.6	-0.4	3.0	2.1	0.2	3.3	5.2	1.5	2.9	4.4	1.5	8.3	-18.0	-23.9

Note A to Tables VIII-1 and VIII-2

DERIVATION OF THE PRELIMINARY ESTIMATES FOR
1934 AND 1935

Perishable commodities: From the retail sales estimates of the Department of Commerce reported in *Domestic Commerce*, February 28, 1937, we took sales by stores in the following groups: foods, beer and liquor, eating and drinking, filling stations, and drugs. The totals were used as an index to extrapolate the 1933 figure of the cost to consumers of perishable commodities. By combining the Bureau of Labor Statistics wholesale price indexes for foods, anthracite coal, petroleum products, and drugs and pharmaceuticals, and utilizing the combined index to extrapolate the price adjustment index for 1933 (the latter was secured by dividing the 1933 figure for perishable commodities in current prices by that in 1929 prices, see Table V-10), we derived an index needed in the adjustment for price changes.

Semidurable commodities: The retail sales of department, dry goods, general merchandise, mail order, variety and apparel stores were obtained from the Department of Commerce estimates and used to extrapolate the 1933 figure. The corresponding price index was secured by using the Bureau of Labor Statistics indexes for prices of shoes, textile products, and automobile tires and tubes to extrapolate the price adjustment index previously obtained by us for 1933 (see Table V-10).

Consumers' durable: Retail sales of the automotive group, the furniture and household group, and jewelry stores as estimated by the Department of Commerce were used to extrapolate the 1933 figure. The corresponding price index was secured by using the Bureau of Labor Statistics price indexes for motor vehicles and housefurnishing goods to extrapolate the price adjustment index previously obtained by us for 1933 (see Table V-10).

Producers' durable: The 1935 estimate of producers' durable commodities (excluding horses, mules, and milk cows) was based on the movement of the value of production of 25 pertinent Census industries or parts thereof from 1933 to 1935 as shown in the preliminary Census releases for 1935. A value for 1934 was then estimated by means of a sample based on the annual value of products of appropriate industries in the State of Pennsylvania. A corresponding price index was secured by using Solomon Fabricant's price index for durable goods as an extrapolator of the price adjustment index previously obtained for 1933 (see Table V-10).

The values for horses, mules, and milk cows in both current and 1929 prices were estimated by the method used for the earlier years, the recent estimates of the Department of Agriculture being adjusted to conform with the series utilized for the earlier period.

Residential construction: The various components of total residential construction were estimated much as in the earlier years (see Table VI-7 and Notes to it). David Wickens' estimates of non-farm residential construction were utilized directly; major additions and alterations were approximated from the permit data; and farm dwellings were estimated in the same manner as previously.

Business construction: Estimates for 1934 were made exactly as in prior years (see Note B to Table VI-7). In 1935, non-residential construction, excluding farm, was estimated on the basis of the movement of the Dodge contract data for commercial, factory, religious and memorial, and social and recreational buildings; major additions and alterations were approximated from the building permit data; farm construction was obtained directly from the Department of Agriculture estimates; and public utility construction was based on the data available for the different types as obtained from the sources described in Note

A to Table VI-8 and from the estimates of Peter Stone. Data were secured for all types of utility construction except electric light and power.

Public construction: Extrapolation for 1934 and 1935 was based on estimates prepared by Peter Stone. This series had also been used to estimate values for 1932 and 1933 (see Table VI-9).

Inventories

(a) *Farm:* Inventories in the hands of farmers were estimated by the method utilized for the earlier years except that the Department of Agriculture figures, because of recent revision, had first to be adjusted to conform with the series used in this study.

(b) *Transportation and other public utilities:* Materials and supplies held by Class I steam railways, electric railways, pipe lines, carriers by water, telephone companies, telegraph and cable companies (all given in reports of the Interstate Commerce Commission and Federal Communications Commission) and by 24 electric light and power corporations (obtained from the Standard Statistics report, *Composite of Financial Statements*, August 14, 1936) were summated and used as a sample to estimate the movement of utility inventories from 1934 to 1935. The 1934 figure was estimated on the basis of corporate inventories of the transportation and public utilities group as shown in *Statistics of Income*, 1933 and in an unpublished release for 1934.

(c) *Distributive trades:* The wholesale trade estimate for 1934 was based on the movement of corporate distributive inventories from 1933 to 1934 (*Statistics of Income*, 1933 and an unpublished release for 1934). For 1935 the 1935 Wholesale Census was used. The ratios of inventories to sales obtained for 1933 and 1935 were adjusted to agree with the 1933 ratio derived from the 1933 estimate of inventories and the 1933 wholesale sales figure shown in *Domestic Commerce*, February 20, 1937. The adjusted 1935 ratio was then applied to the 1935 figure in the latter. These small adjustments were necessary because of slight changes in the structure of the Wholesale Census from census year to census year. Our estimates utilize the 1929 Census as a base and thus require that later censuses be rendered as nearly comparable with it as possible. Translation into 1929 prices and the subsequent calculation of net changes were accomplished by the methods employed in the earlier years. In order to derive the necessary price indexes the annual average and the average for December-January, Bureau of Labor Statistics wholesale price indexes for all commodities, excluding farm products, were spliced to the actual 1933 indexes indicated by comparison of the wholesale inventory estimates in current and 1929 prices (see Tables VII-6, VII-7, VII-9 and VII-10).

The retail estimate for 1934 was also based on the movement of corporate distributive inventories from 1933 to 1934. For 1935 the same procedure was followed as for wholesale trade, except that the Retail Census data and the retail sales estimates in *Domestic Commerce* were used. Translation into 1929 prices and the subsequent calculation of net changes were based on the extrapolating price indexes that were used for wholesale inventories. These indexes were applied to the actual price indexes indicated by comparison of the 1933 retail inventory figures in current prices with those in 1929 prices (see Tables VII-6, VII-7, VII-9 and VII-10).

(d) *All other:* Lack of detailed data made necessary the computation of all remaining inventories in one group, includ-

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ing inventories for mining, manufacturing, construction, service, finance, and nature of business not given. For 1934 the total of corporate inventories for all groups except agriculture, trade, and transportation and other public utilities (*Statistics of Income*, 1933 and an unpublished release for 1934) was used as an extrapolator. For 1935 the movement of the Standard Statistics sample of 483 corporations from

1934 to 1935 was used. Translation to 1929 prices and the subsequent calculation of net changes were accomplished by price indexes derived from the Bureau of Labor Statistics wholesale price index for all commodities, excluding farm products, spliced to the actual indexes shown by a comparison of the 1933 inventories in current and 1929 prices (based on Tables VII-6, VII-7, VII-9 and VII-10).

Table VIII—3

NET CAPITAL FORMATION, 1919-1935

Available estimates of the current consumption of capital goods used by business enterprises and by governmental agencies (exclusive of residential real estate), and of residential real estate, make it possible to obtain approximate measures of net capital formation. The measures are provided in both current and 1929 prices.

For discussion of this table see Preface to Part VIII, Section 3.

Table VIII.3
NET CAPITAL FORMATION
(millions of dollars)

	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935
Current Prices																	
Gross capital formation																	
1 For business use (Table VIII-2, lines 2a + 2c + 2d)	13,128	16,681	6,166	7,165	11,583	7,558	11,137	11,668	10,402	9,916	13,903	8,152	4,393	655	1,858	2,680	5,095
2 Residential construction	1,732	1,493	2,241	3,524	4,422	4,713	5,202	4,757	4,524	4,255	3,010	1,805	1,262	444	392	458	923
3 Public agencies	1,166	1,672	2,453	2,378	2,272	2,528	2,444	2,568	2,676	2,696	3,073	3,334	2,483	2,008	1,720	3,791	4,858
4 Total	16,026	19,846	10,860	13,067	18,277	14,799	18,783	18,993	17,602	16,867	19,986	13,291	8,138	3,107	3,970	6,929	10,876
Consumption of capital goods ¹																	
5 Business use	6,297	7,263	5,492	5,293	6,002	5,857	5,954	6,550	6,457	6,674	7,134	6,746	6,058	5,200	4,921	5,395	5,669
6 Residential real estate	2,082	2,666	1,894	1,781	2,056	2,100	2,133	2,239	2,338	2,407	2,480	2,431	2,087	1,826	1,752	1,873	1,853
7 Government use ²	445	521	419	406	450	465	480	514	554	575	602	606	597	548	582	648	686
8 Total	8,824	10,450	7,805	7,480	8,508	8,422	8,567	9,303	9,349	9,656	10,216	9,783	8,742	7,574	7,255	7,916	8,208
Net capital formation originating in																	
9 Gross capital formation destined for business use, line 1 - line 5	6,831	9,418	674	1,872	5,581	1,701	5,183	5,118	3,945	3,242	6,769	1,406	-1,665	-4,545	-3,963	-2,715	-574
10 Residential construction, line 2 - line 6	-350	-1,173	347	1,743	2,366	2,613	3,069	2,518	2,186	1,848	530	-626	-825	-1,382	-1,360	-1,415	-930
11 Gross capital formation destined for use by public agencies, line 3 - line 7	721	1,151	2,034	1,972	1,822	2,063	1,964	2,054	2,122	2,121	2,471	2,728	1,886	1,460	1,138	3,143	4,172
12 Total, line 4 - line 8	7,202	9,396	3,055	5,587	9,769	6,377	10,216	9,690	8,253	7,211	9,770	3,508	-604	-4,467	-3,285	-987	2,668
13 Net changes in claims against foreign countries	+3,315	+2,254	+628	+215	-78	+446	+428	+44	+606	+957	+312	+371	+326	+40	+298	-868	-1,868
14 Net capital formation, line 12 + line 13	10,517	11,650	3,683	5,802	9,691	6,823	10,644	9,734	8,859	8,168	10,082	3,879	-278	-4,427	-2,987	-1,855	800

	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935
1929 Prices																	
Gross capital formation																	
1 For business use (Table VIII-2, lines 2a + 2c + 2d)	10,332	11,534	5,382	7,079	11,037	7,276	11,038	11,306	10,902	10,118	13,886	8,544	5,052	668	2,155	2,977	5,988
2 Residential construction	1,664	1,135	2,230	3,797	4,248	4,589	5,218	4,757	4,515	4,268	3,010	1,865	1,506	600	548	594	1,198
3 Public agencies	1,231	1,226	2,487	2,315	2,010	2,284	2,245	2,403	2,531	2,635	3,073	3,432	2,768	2,494	2,044	3,654	4,362
4 Total	13,227	13,895	10,099	13,191	17,295	14,149	18,501	18,466	17,948	17,021	19,969	13,841	9,326	3,762	4,747	7,225	11,548
Consumption of capital goods ¹																	
5 Business use	5,732	5,708	5,506	5,821	5,932	5,909	6,112	6,671	6,557	6,818	7,134	7,084	6,951	6,533	6,315	6,464	6,584
6 Residential real estate	2,000	2,027	1,885	1,919	1,975	2,045	2,139	2,239	2,333	2,414	2,480	2,511	2,490	2,467	2,447	2,433	2,407
7 Government use ²	397	394	405	432	424	450	479	514	551	584	602	631	669	696	722	755	788
8 Total	8,129	8,129	7,796	8,172	8,331	8,404	8,730	9,424	9,441	9,816	10,216	10,226	10,110	9,696	9,484	9,652	9,779
Net capital formation originating in																	
9 Gross capital formation destined for business use, line 1 - line 5	4,600	5,826	-124	1,258	5,105	1,367	4,926	4,635	4,345	3,300	6,752	1,460	-1,899	-5,865	-4,160	-3,487	-596
10 Residential construction, line 2 - line 6	-336	-892	345	1,878	2,273	2,544	3,079	2,518	2,182	1,854	530	-646	-984	-1,867	-1,899	-1,839	-1,209
11 Gross capital formation destined for use by public agencies, line 3 - line 7	834	832	2,082	1,883	1,586	1,834	1,766	1,889	1,980	2,051	2,471	2,801	2,099	1,798	1,322	2,899	3,574
12 Total, line 4 - line 8	5,098	5,766	2,303	5,019	8,964	5,745	9,771	9,042	8,507	7,205	9,753	3,615	-784	-5,934	-4,737	-2,427	1,769
13 Net changes in claims against foreign countries	+2,280	+1,391	+613	+212	-74	+433	+394	+42	+605	+943	+312	+409	+426	+59	+431	-1,104	-2,226
14 Net capital formation, line 12 + line 13	7,378	7,157	2,916	5,231	8,890	6,178	10,165	9,084	9,112	8,148	10,065	4,024	-358	-5,875	-4,306	-3,531	-457

¹These data include depreciation, depletion and fire losses. A detailed description of the estimates will appear in a forthcoming National Bureau report by Solomon Fabricant on Capital Consumption.

²No depreciation charges were calculated on public roads and sewers.

Table VIII—4

NATIONAL PRODUCT, COMMODITY FLOW, AND CAPITAL
FORMATION, 1920–1934

The estimated volume of commodity flow and gross capital formation are compared with gross national product; and net capital formation with net national product or national income. The comparison is carried through for the series smoothed by three-year moving averages centered on the middle year of the three; and is presented in both current and 1929 prices. The absolute and relative magnitudes of the residual parts of gross national product (gross value of services not embodied in new commodities and consumers' outlay) and of national income (consumers' outlay) are shown.

For discussion of this table see Preface to Part VIII, Section 4.

Table VIII-4

NATIONAL PRODUCT, COMMODITY FLOW AND CAPITAL FORMATION

(three-year moving averages centered on middle year)
(absolute values in millions of dollars)

	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934
Current Prices															
1 Gross national product	72,578	72,057	70,516	74,730	80,139	83,661	86,324	88,537	90,157	88,805	80,371	64,892	52,830	49,835	54,515
2 Gross flow of new commodities (Table VIII-1, line VII)	60,018	56,592	53,746	56,577	61,333	63,733	66,422	66,917	68,177	65,654	58,317	45,145	36,602	34,655	39,371
3 Gross value of services not embodied in new commodities, line 1 - line 2	12,560	15,465	16,770	18,153	18,806	19,928	19,902	21,620	21,980	23,151	22,054	19,747	16,228	15,180	15,144
4 Gross flow of new commodities as percentage of gross national product	82.7	78.5	76.2	75.7	76.5	76.2	76.9	75.6	75.6	73.9	72.6	69.6	69.3	69.5	72.2
5 Gross value of services not embodied in new commodities as percentage of gross national product	17.3	21.5	23.8	24.3	23.5	23.8	23.1	24.4	24.4	26.1	27.4	30.4	30.7	30.5	27.8
6 Gross national product	72,578	72,057	70,516	74,730	80,139	83,661	86,324	88,537	90,157	88,805	80,371	64,892	52,830	49,835	54,515
7 Gross capital formation (Table VIII-2, line 8)	17,643	15,623	14,323	15,575	17,552	17,831	18,819	18,356	18,777	17,261	14,141	8,424	5,293	4,492	6,446
8 Consumers' outlay, line 6 - line 7	54,935	56,434	56,193	59,155	62,587	65,830	67,505	70,181	71,380	71,544	66,230	56,468	47,537	45,343	48,069
9 Gross capital formation as percentage of gross national product	24.3	21.7	20.3	20.8	21.9	21.3	21.8	20.7	20.8	19.4	17.6	13.0	10.0	9.0	11.8
10 Consumers' outlay as percentage of gross national product	75.7	78.3	79.7	79.2	78.1	78.7	78.2	79.3	79.2	80.6	82.4	87.0	90.0	91.0	88.2
11 National income	63,552	63,479	62,585	66,594	71,640	74,897	77,251	79,101	80,417	78,920	70,791	56,193	44,974	42,253	46,722
12 Net capital formation (Table VIII-3, line 14)	8,617	7,045	6,392	7,439	9,053	9,067	9,746	8,920	9,036	7,376	4,561	-275	-2,564	-3,090	-1,347
13 Consumers' outlay, line 11 - line 12	54,935	56,434	56,193	59,155	62,587	65,830	67,505	70,181	71,381	71,544	66,230	56,468	47,538	45,343	48,069
14 Net capital formation as percentage of national income	13.6	11.1	10.2	11.2	12.6	12.1	12.6	11.3	11.2	9.3	6.4	-0.5	-5.7	-7.3	-2.9
15 Consumers' outlay as percentage of national income	86.4	88.9	89.8	88.8	87.4	87.9	87.4	88.7	88.8	90.7	93.6	100.5	105.7	107.3	102.9

Table VIII-4 (Concluded)

	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934
1929 Prices															
1 Gross national product	64,471	65,973	69,481	74,722	79,170	82,154	84,660	87,440	89,860	89,554	83,715	71,926	63,796	62,554	67,562
2 Gross flow of new commodities (Table VIII-1, line VII)	47,739	48,379	51,520	55,394	59,700	62,160	65,598	66,580	68,401	66,276	61,918	53,030	47,893	45,953	48,715
3 Gross value of services not embodied in new commodities, line 1 - line 2	16,732	17,594	17,961	19,328	19,470	19,994	19,062	20,860	21,459	23,278	21,797	18,896	15,903	16,601	18,847
4 Gross flow of new commodities as percentage of gross national product	74.0	73.3	74.1	74.1	75.4	75.7	77.5	76.1	76.1	74.0	74.0	73.7	75.1	73.5	72.1
5 Gross value of services not embodied in new commodities as percentage of gross national product	26.0	26.7	25.9	25.9	24.6	24.3	22.5	23.9	23.9	26.0	26.0	26.3	24.9	26.5	27.9
6 Gross national product	64,471	65,973	69,481	74,722	79,170	82,154	84,660	87,440	89,860	89,554	83,715	71,926	63,796	62,554	67,562
7 Gross capital formation (Table VIII-2, line 8)	13,835	13,134	13,779	15,069	16,899	17,328	18,652	18,342	18,933	17,498	14,761	9,274	6,250	5,040	6,874
8 Consumers' outlay, line 6 - line 7	50,636	52,839	55,702	59,653	62,271	64,826	66,008	69,098	70,927	72,056	68,954	62,652	57,546	57,514	60,688
9 Gross capital formation as percentage of gross national product	21.5	19.9	19.8	20.2	21.3	21.1	22.0	21.0	21.1	19.5	17.6	12.9	9.8	8.1	10.2
10 Consumers' outlay as percentage of gross national product	78.5	80.1	80.2	79.8	78.7	78.9	78.0	79.0	78.9	80.5	82.4	87.1	90.2	91.9	89.8
11 National income	56,453	57,941	61,331	66,419	70,682	73,301	75,462	77,880	80,036	79,468	73,531	61,915	54,032	52,943	57,924
12 Net capital formation (Table VIII-3, line 14)	5,817	5,101	5,679	6,766	8,411	8,476	9,454	8,781	9,108	7,412	4,577	-736	-3,513	-4,571	-2,765
13 Consumers' outlay, line 11 - line 12	50,636	52,840	55,702	59,653	62,271	64,825	66,008	69,099	70,928	72,056	68,954	62,651	57,545	57,514	60,989
14 Net capital formation as percentage of national income	10.3	8.8	9.3	10.2	11.9	11.6	12.5	11.3	11.4	9.3	6.2	-1.2	-6.5	-8.6	-4.8
15 Consumers' outlay as percentage of national income	89.7	91.2	90.7	89.8	88.1	88.4	87.5	88.7	88.6	90.7	93.8	101.2	106.5	108.6	104.8

